THE

CINCINNATI JOURNAL OF MEDICINE.

MAY, 1867.

A Case of Poisoning, by Sulphate of Morphia, treated by Belladonna; with Remarks.

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At 11:45, A. M., April 2, 1867, I was requested by Dr. Jas. F. Hibberd, of this city, to see Mr. W——, æt. 50, who was supposed to be suffering from a poisonous dose of sulphate of morphia. Upon inquiry, we learned, that the patient had been, for several days, taking pills of sulphate of morphia, each containing $\frac{1}{6}$ of a grain of the salt, in order to obtain relief from a neuralgia affecting his left side; that on the preceding day, he had obtained a new supply of the pills, and that between 5 and 10, P. M., he had taken, two or three times, an unknown number of them. At 11, P. M., his wife becoming alarmed at his stertorous breathing, and finding herself unable to arouse him, sent for Dr. H.

Upon visiting the patient, we found the following symptoms: Patient lying upon his back; respiration stertorous—10 to the minute; comatose, although by persistent shaking, and loud talking, he could be roused for a brief period; skin pale, rather cool, and bathed with perspiration; pupils much contracted, although not to a point; pulse 120, and of moderate strength. Upon consultation, we did not deem it advisable to exhibit an emetic, or to institute any treatment whatever, with the exception of the administration of belladonna. This was given, in the form of Thayer's Fluid Extract, using a specimen that had previously proven itself to be an active and reliable article.

At 11:20, A. M., condition of patient remaining about the same as above described, four drops of the medicine were administered. At 12:40, condition the same; two drops more of the belladonna given. At 1, the roughest treatment failed to rouse the patient in the least degree; pulse feeble, 128 to the minute; skin cooler;

other symptoms as before; two drops more of the belladonna given. At 1:30, still profoundly comatose; pupils contracted to a mere point; pulse feeble, 138 to the minute; respiration stertorous, with marked whiffing sound on expiration, 8 to the minute; slight convulsions, occurring almost continuously, the spasmodic action being mainly confined to the muscles of the trunk and arms; administered two drops of the belladonna. At 1:50, condition remaining the same, the belladonna was repeated. At 2:30, the convulsions ceased; pulse 128, with more strength; respiration less labored; capillary circulation more active, and a slight red flush of the face indicated the action of the belladonna; pupils remained unchanged. At 3, the convulsions had not returned; pulse 120, and stronger than before; pupils slightly dilated; skin warm, and *very red;* stertorous breathing and coma still continued. At 4, his general condition was about the same; pupils less contracted; pulse 130; skin warm, and red; respiration less stertorous, 12 to the minute; gave three drops of the belladonna. At 5, skin very red; the pupils had regained about their normal size; pulse 100. Upon roughly shaking, and sharply speaking to him, he roused up sufficiently to say: "What's the matter, Doc.?" but immediately relapsed into stertorous slumber.

At 6, his pulse was 112; in other respects his condition remained unchanged. At 8, he could be momentarily roused up, without much difficulty; his skin still remained very red; the pupils were, perhaps, a little more dilated than before; the respiration quiet and natural. At 11, he was awake, but still very sleepy; he could talk, but seemed to have no very definite idea of what was the matter with him.

At 5 in the evening, he was sitting up; had taken some coffee during the afternoon, which was immediately rejected by the stomach; complained much of itching and tingling of the skin; also of dryness about the throat.

During the following night, he was unable to sleep, while every thing swallowed immediately induced vomiting. The inability to sleep, together with the rebellious condition of the stomach, continued for thirty-six hours longer, after which recovery rapidly followed.

It is much to be regretted that it is impossible to determine the amount of morphia taken by this patient; for, could this be done, the case would be an important one from which to draw conclu-

sions, in regard to the reputed antagonism existing between opium and belladonna; for this case—unlike most others, reported for the purpose of proving the antidotal powers of belladonna, in cases of opium poisoning—is neither complicated, nor rendered obscure by the variety of treatment adopted. Whatever may have been the amount of morphia taken, it is very evident that it was sufficiently great to seriously endanger the patient's life.

A belief in the existence of antagonistic qualities, between opium and belladonna, is, by no means, of modern origin. Pena and De Lobel, in a work, entitled *Stirpium Adversaria Nova*, published in London, in 1570, relate that certain Italians, for the purpose of exciting the wonder of the common people, were in the habit of giving portions of the root of the belladonna, the evil effects of which were averted by administering a compound containing opium. Horstius, in his *Opera Medica*, published in 1661, relates the case of a man, who, having been poisoned by swallowing the inspissated juice of the belladonna, recovered after taking *theriaca*, which contained, among the seventy-two ingredients entering into its composition, a little more than a grain of opium to the drachm. Faber, in his work on *Strychnomania*, published in 1677, reports thirteen cases in which belladonna lenies were swallowed; eleven of these cases presented the usual symptoms of belladonna poisoning; two of the number died. Ten of the cases were treated, principally, with theriaca. M. Boucher, of Lille, in 1766, published two cases of poisoning by belladonna lenies, one of which was in a state of coma, and the other delirious, to whom preparations of opium were administered. In 1810, Joseph Lipp published an inaugural dissertation, in which he reports several cases of belladonna poisoning, treated by the use of Sydenham's laudanum. Giaconimi, in an article, published in 1839, in the *Encyclopedie des Sciences Medicales*, says that opium has always been found useful in the treatment of poisoning by hyoscyamus, strammonium, and belladonna. In 1854, Dr. Thomas Anderson, in a paper read before the Physiological Society of Edinburgh, remarks, that in consequence of the suggestions made by Dr. Graves, that an agent which would dilate the pupils might, perhaps, be given with advantage in cases of coma with contracted pupils, in low fever, he determined to administer belladonna in cases of opium poisoning, and reports, in detail, two cases so treated with success.

Since this period, numerous cases of opium poisoning, treated by belladonna, and belladonna poisoning, treated by opium, have been reported. Dr. Norris, in a paper published in the *American Journal of the Medical Sciences*, for October, 1862, presents, in a tabular form, all the reported cases up to that time, of which he had been able to collect the details. He gives the details in relation to twelve cases of opium poisoning, treated by belladonna. In these cases, the amount of the poison taken varied from a decoction containing two poppy-heads, to seventy-five grains of sulphate of morphia. The belladonna was given in various forms, and varied in amount from $\frac{16}{100}$ of a grain of the hydro-alcoholic extract, to f℥i of the tincture, and twenty grains of the extract. Three cases died, and nine recovered. Fourteen cases of poisoning, by belladonna, treated by opium, are reported, the quantity of poison varying from two lenies, to f℥i of *succus belladonna*, (a very concentrated preparation,) and the amount of opium administered, from $\frac{1}{2}$ grain extract of opium, to twenty-eight grains of opium. All the cases recovered, except one. Four cases of poisoning by atropia, treated by opium, are given. The amount of atropia varied from $\frac{1}{3}$ to $\frac{1}{4}$ of a grain, and of the morphia given, from $\frac{1}{3}$ of a grain to $\frac{1}{2}$ grain doses, in quick succession.

The following Tables contain a summary of all the cases published since—with sufficient details to make them of any value—that I have been able to find. It is true that quite a number of other cases have been reported, but in so vague and uncertain a way that they cannot be tabulated.

Cases of Opium Poisoning treated by Belladonna.

NO.	AGE.	AMOUNT OF OPIUM TAKEN	CONDITION OF PATIENT.	AMOUNT OF BELLADONNA GIVEN.	RESULT.	AUTHORITY.
1.	3½ mos.	Tea-spoonful and a half of paregoric nearly one-half stronger than tinc. opii cam., U. S. P.	Narcotism: deglutition difficult: pupils contracted to size of a small pin's head. Child only kept aroused from stupor by severe and continued agitation.	40 drops tinct. belladonna, in 10 drop doses every 15 minutes; first dose of belladonna administered about six hours after taking the poison.	Recovered. After last portion of belladonna, pupils dilated to double, and an hour later, "to triple the former size."	Downs. Phil. Med. and Surg. Reporter, March 3, 1866, from Trans. N. Y. State Medisal Society, 1865.
2.	35	Tincture opii. ℥ss. = 18¾ grains of opium.	Profound stupor, from which she could not be roused; pupils contracted to size of pin's point.	℥ji. tinct. belladonna at once, afterward gr. vi, of extract in two grain doses every 20 minutes.	Recovered; 8 hours after taking last dose of belladonna, pupils were natural, and consciousness complete.	Mr. Louis and Dr. Jones, published as above.
3.	Not given. Woman	Tincture opii, ℥ss. = 56¼ grains of opium.	"All the symptoms of opium poisoning present."	Tinct. belladonna 90 drops, 30 drop doses, repeated every half hour, (emetic had been previously administered.)	Rapid recovery. No indications of having taken belladonna.	Wm H. Thompson, reported as above.
4.	Not given. Soldier.	Tincture opii, ℥ij. = 75 grains of opium, afterward smoked one grain of opium.	Three hours afterward was comatose: pupils contracted. "Slightly spasmodic."	Tinct. belladonna, 140 drops, in 40 drop doses every half hour, until 120 drops had been taken; half an hour later, the remainder.	Recovered, entirely, in a few hours after taking the last of the belladonna, without any signs of its action remaining.	Same authority as the last.

Cases of Opium Poisoning treated by Belladonna.—CONTINUED.

NO.	AGE.	AMOUNT OF OPIUM TAKEN	CONDITION OF PATIENT.	AMOUNT OF BELLADONNA GIVEN.	RESULT.	AUTHORITY.
5.	Not given. Soldier.	"Tinct. opii, more than an ounce."	An hour afterward, drowsy; face flushed; pulse low; pupils much contracted; hands twitching; tendency to convulsions.	Ext. belladonna, gr. iii. in ¼ grain doses, repeated every half hour.	Recovered. "Two hours after first dose of belladonna, the pupils had dilated; pulse and skin natural, and able, shortly after, to go on duty."	Hackley. Published as above.
6.	Not given. Child.	Tincture opii, 1 teaspoonful.	An hour after taking poison, comatose and incapable of being roused.	Tinct. belladonna, 60 drops, in 10 drop doses every hour.	Recovered.	Garrish. Published as above.
7.	Not given. Man.	Opium x grs.	In an hour afterward, was in a semi-comatose state, pupils contracted.	Tinct. belladonna, 60 drops, in 20 drop doses every hour; emetic had previously been given.	Recovered.	Same as above.
8.	Not given. Man.	Tincture opii, ʒji. = 37½ grains of opium.	Two hours afterward, pulse feeble; pupils contracted; stertorous breathing, and could not be roused.	Tinct. belladonna, 90 drops, in 20 drop doses, every hour; emetic before taking belladonna.	Recovered.	Same as above.
9.	11.	Tincture opii, ʒj. = 56¼ grains of opium.	Comatose; breathing stertorous; pupils contracted to a point; lower jaw dropped; tongue in constant motion. Respiration, six to the minute.	Ext. belladonna, 16 grains, in solution, in three hours; stomach-pump and galvanism also used.	Complete recovery.	Dr. P. Lucas. Amer. Jour. Medical Sci., April, 1865. From Times and Gazette, Feb. 25, 1865.

10.	Not given. Woman	Morph. Sulph. gr. v.	Six hours afterward, was in a complete state of insensibility; pupils contracted; breathing stertorous; skin cold.	Tinct. belladonna, ƒʒi., ʒiv. given in doses of ƒʒi. every half hour.	After last dose of belladonna, the pupils were dilated, breathing more natural; rapidly recovered.	J. L. Prentiss. Chicago Med. Journal, Dec., 1866.
11.	59.	Morph. Sulph.	Four hours after taking poison, was intensely pale; pupils unaltered; pulse 170, and very feeble; was in a condition of stupor, but could be aroused.	5½ hours after taking morphia, ƒʒi. tinct. belladonna, (by enema,) afterward nearly vƒʒ. tinct. belladonna, by mouth, in three doses, ⅓ gr. atropia, by subcutaneous injection in 1-12 gr. doses, after first dose of tinct. belladonna, by mouth; stomach-pump, galvanism, &c.	Recovered.	S. W. Mitchell. N. Y. Med. Journal, Nov., 1866.
12.	16.	Morph. Sulph. quantity unknown, estimated at iv grains.	Comatose; respiration almost imperceptible; pupils contracted to size of pin's head; pulse 80, and very feeble; extremities cool; face livid and congested.	Hypodermic injection of ¼ gr. sulph. atropia at two doses, supposed not to have been absorbed.	Died 13 hours after taking morphia.	D. W. Prentiss. Amer. Jour. Medical Sci., April, 1867.

Cases of Belladonna Poisoning treated by Opium.

NO.	AGE.	AMOUNT OF POISON TAKEN	CONDITION OF PATIENT.	AMOUNT OF OPIUM ADMINISTERED.	RESULT.	AUTHORITY.
1.	2	Ext. belladonna, quantity unknown.	Six hours afterward pulse strong: pupils greatly dilated; delirious.	Tinct. opii, 12 drops in doses of from 2 to 3 drops. Emetic previously given.	Recovered.	Macnamara. Amer. Jour. Medical Sci., April, 1863. From Dublin Quar Jour. Med. Scienec, Feb., 1863.
2.	Not given. Man.	Atropia Sul., $\frac{1}{6}$ to $\frac{1}{4}$ gr. in solution.	Delirious; pupils dilated to the utmost degree; tongue swollen and projecting between the teeth; "required five men to place and hold him on his back."	One-fifth gr. morph. acet. injected into right temple; two hours after, $\frac{1}{4}$ gr. was used in like manner.	Recovered.	Dr. V. Schmidt. Ophthalmic Review, Jan., 1865.
3.	$2\frac{1}{2}$	Atropia Sul., half grain in solution.	Half an hour afterward, pupils largely dilated, insensible to light; tongue and lips red and dry; spasmodic action of muscles; limbs cold; skin covered with an eruption resembling scarlatina.	Emetic of sulph. zinc, first given half an hour after $\frac{1}{4}$ grain of opium, "repeated in $\frac{1}{4}$ grain doses, several times, at intervals of half an hour."	"After several doses of the opium had been taken, the eruption faded, and the pupils regained their normal size; slept some time, then waked up, well."	Woods. Cin. Lancet and Observer, Oct., 1864.

When an attempt is made to sum up all this evidence, it is, by no means as easy as would first appear, to decide how far it is proven that opium and belladonna, when taken in poisonous doses, counteract each other; for, in most of the cases, other methods of treatment were practiced, by the use of which alone, an equal number of cases of opium and belladonna poisoning, have been conducted to a successful termination. In deciding the question, it is, therefore, necessary that we should determine how much of the success has been owing to other treatment practiced, and not to the antidotal qualities of the drugs in question.

It is argued, "that in opium poisoning, belladonna, in doses which, in a state of health, would certainly poison, may be administered with impunity, and be followed by a rapid subsidence of the symptoms produced by the exhibition of the former drug, and *vice versa;* that opium rapidly and safely counteracts the poisonous influence of belladonna." This argument loses much of its force when it is remembered that large doses of both opium and belladonna have been taken without the usual effects following. For example: Dr. A. S. Taylor, in *Guy's Hospital Reports*, Oct. 1850, reports a case in which five ounces of laudanum were taken, without producing sleep, and the patient recovered. Dr. Hays, in the *American Journal Medical Science*, April, 1859, reports a case, where a child, not quite six years old, took 7½ grains of opium, mixed with an equal quantity of chalk. The child was seen fourteen hours afterwards, and was found restless and drowsy; no vomiting had occurred, and the narcotism, which was never very profound, gradually wore off. Dr. Fuller, in the *Medical Times and Gazette*, for July, 1859, reports a case where a child, ten years old, took seventy grains of extract of belladonna, daily, and a total amount of rather more than two ounces, in twenty-six days; and another, fourteen years old, who took thirty-seven grains of atropia in eighteen days! Examples of a similar kind might be multiplied, were it necessary. The evidence, certainly favors the conclusion that these poisons do antagonize each other, but the testimony is mostly circumstantial, and not of that unequivocal kind required to establish a fact in science. To set the question at rest, it is necessary that a series of carefully conducted experiments be made, from which every element of doubt and uncertainty shall be rigorously excluded. Much has already been done in this direction. Drs. Mitchell, Keen and Morehouse, published, in the *American Journal Medical Science*, July 1865, an ar-

ticle "*On the Antagonism of Atropia and Morphia; founded upon observations and experiments made at the U. S. A. Hospital for injuries and diseases of the nervous system.*" In these experiments, morphia and atropia were introduced into the system, by hypodermic injection. The effects produced upon the various functions of the body, by these agents, when used alone, and together, were carefully observed and compared, and, as a result, they were able to arrive at a number of positive conclusions, which, in my opinion, do more to settle the question under consideration than all the evidence previously reported. The following are some of their conclusions, bearing directly upon the point at issue:

"That as regards the circulation, they (morphia and atropia) do not counteract one another."

"As regards the eye, they are mutually antagonistic."

"The cerebral symptoms caused by either drug, are, to a great extent, capable of being overcome by the other."

"As regards toxic effects upon the cerebral organs, the two agents are mutually antidotal, but this antagonism does not prevail throughout the whole range of their influence, so that, in some respects, they do not counteract one another; while, as concerns one organ, the bladder, both seem to affect it in a similar way."

All interested in this question, who prefer facts rather than inferences, will find the paper referred to well worthy of examination.

In conclusion, in cases of poisoning, where opium and belladonna are given to counteract one another, better judgment should certainly be exercised, as regards the quantity administered, than has sometimes been done, lest in our efforts to escape Scylla, we fall into Charybdis.

The American Medical Association.

EDS. JOURNAL:—As the American Medical Association is about to hold its eighteenth annual session in Cincinnati, perhaps a few words in relation thereto may not be out of place at this time.

This national congress of medical men is unlike any gathering of professional persons known to any other civilized country. It has no corporate charter, is not under the patronage of either the national or any state government, and has no endowment—depending for its pecuniary status entirely upon the admission fee of those

who attend its annual gatherings. Moreover, it has no abiding place, but is required by its fundamental law not to meet for two successive years in the same place, thus making of itself a vagrant that has already visited fourteen of the principal cities of the Union, and four of these twice, at distant periods.

It is a spontaneous organization of the profession, that grew out of a deep feeling that there was a necessity, among other things, "for exciting and encouraging emulation and concert of action in the profession, and for facilitating and fostering friendly intercourse between those who are engaged in it;" "for elevating the standard of medical education;" and "for cultivating and advancing medical knowledge."

Perhaps the characteristic features which distinguish this Association from those of other nations, aiming at the same general purpose, arise out of the peculiarities of our political institutions, the form of our government, and the democratic tendencies and genius of our people, even in professional circles. It has a greater freedom of action, and a wider range of membership, than is common to scientific societies, and while this permits a certain diffuseness in its transactions, and gives a magnitude to its annual meetings, that makes the one sometimes tiresome, and the other frequently cumbersome, yet it is doubtful whether the plan of organization could be changed in its essential features without losing, to the Association, much of its ability to accomplish the great good it is now steadily achieving.

Undoubtedly there are many excellent men in the profession who earnestly desire, and labor for, its most solid and useful advancement; who do not believe that the American Medical Association has heretofore been an instrumentality to this end in the least, and who see no greater usefulness for it in the future; but we must remember that there are many good men in every department of life who can never find a promise of success at the birth of any new organization, and fail to recognize even great forces for good purposes in cotemporary institutions.

Certainly no unprejudiced mind, acquainted with the workings of the Association, for twenty years of its existence, can fail to see that it has made a powerful impression, both in the medical world, and outside of it. It has a triune function, social, disciplinary, and scientific. In its social aspect it has always been a success, and eminently so, and without a drawback, since the stronger alcoholic

beverages have been discarded from the social board, and the rule has been rigidly observed. One can not doubt that parties having this affair in charge, this year, will appreciate the necessity of a close adherence to the rule that forbids the putting of a stumbling block in the path of a weak brother, who has lost the command of his appetite; the slight departure from it that occurred last year, bore fruit that proclaimed the propriety of its unbroken sway.

In the disciplinary and legislative department of the Association, much has been done in several directions, though all has not yet been accomplished, in relation to educational institutions, that is desirable, but a forcible influence has been felt herein; good seed has been sown, has germinated, and is now rapidly growing, and in due season the harvest will be gathered. The code of ethics promulgated by the Association, in the earlier years of its existence, is acknowledged as law throughout our wide borders; notwithstanding individuals, here and there, have manifested a rebellious spirit from time to time—these mutterings serving at once as a test of the authority of the Association, and as a measure of the justness of its enactments, so far as regards its rule over, and control of the conduct of, its individual members—many will remember the instance of a distinguished member of the profession in New York, some eight or ten years ago, making a manly, formal, written apology to the Association for a violation of its rules, in behalf of a friend of long standing; and all who witnessed the hot æsthesia manifested in 1865—when a supposed erring brother was hastily disowned from fellowship—and were present to see the joyous exhilaration that prevailed in 1866,—when the Association, having ascertained that its former action was based on erroneous information, promptly restored the party to full communion, and greeted him as one who had suffered a grievous wrong—will want no higher testimony of the value that members of the Association attach to the maintenance of good standing in its ranks.

To conduct the scientific labors of the Association in a manner commensurate with their importance, and to a success that all feel they should attain, has been the vexed problem from the very inception of the organization. Every one acknowledges that papers on, and discussions of, scientific matters, should constitute the important measure of every annual meeting, and from which the attendants should derive most of both pleasure and profit. But in the very nature of the ponderous and unweildly organization is

found the insurmountable obstacle to getting through with other affairs, preliminary in character, and reaching the scientific papers during the daily sessions, in time to give them adequate consideration. Several plans had been proposed to overcome this difficulty without avail, when, about eight years ago, it was decided to divide the Association into several sections, giving to each section control of a certain class of subjects, and appropriating the entire afternoon of each day's sessions to the meeting of the sections.

For four annual meetings these sections have been in operation, and have had some influence in gaining a better hearing, for the matters referred to them, than could have been had in the general sessions of the Association. Still, as these meetings of the sections have been sandwiched in between the morning meeting of the Association, and the evening social festivities, their time has been often encroached upon, by the one or the other. Supposing the full afternoons, for the four days' continuance of the annual meetings, were to be completly consumed by the deliberations of the sections, it would only give sixteen hours for the consideration of scientific affairs. When we reflect upon the length of many of the papers submitted, and the rambling debate that many subjects excite, we see at a glance that it is impossible for the sections to get through with their business in a proper manner. Something further must be done to economize the time, and utilize the labor of the sections, or the annual meetings of the Association will be open to the objection in the future, as they have been in the past, that the scientific aspect of them has not been developed to its highest state of attraction and usefulness.

What, then, can be done to give greater point and power to the proceedings of the sections, and make them, as they of right should be, the central attraction of the annual meetings of the Association? This is a problem more easily presented than solved. Still the way is open to begin the solution. Let a rule be adopted by the Association, that the President shall adjourn the general session of the morning at a fixed hour, unless, by unanimous vote, it is forbidden. This will keep off the encroachment upon the time of the section from that direction. Let a rule, equally stringent, forbid the acceptance, by the Association, of an invitation to any excursion, or other entertainments of any kind whatever, during the hours appointed to the meeting of the sections. These measures will secure inviolate the time belonging to the sections,

and will be a large step in the right direction. Next, let each section be organized, like the Association, with a competent, permanent secretary, and make the chairmanship of a section only second in honor to the Presidency of the Association—something to be accepted by the eminent, and appreciated by all. The present method of selecting officers hap-hazard, at every meeting, and in some instances, every day of the meeting, is a great drawback to the proper businessof the sections. Rules of proceeding should be adopted, the chairman call the meeting to order at the appropriate hour, and the secretary, having the business arranged, the section can go to work intelligently without loss of time, which is not now the case. If it is found impossible to read and consider all the papers before the section, let those best adapted to profitable discussion be selected, and the others referred to sub-committees.

The sections, by some such measures as these, being elevated to their proper dignity and attractiveness, will soon find means to draw still more interest around themselves. Perhaps some, or all of them, will select, in advance, the subjects for consideration at each day's session, and appoint those members most competent to please and instruct to present the theme, and lead off in the discussion, thus bringing out modest merit, which is so loth to push itself forward in a crowd. If to this there be added phonographic reports of all instructive oral discussions, we shall no longer hear of a want of success in the scientific proceedings of the annual meetings of the American Medical Association. H.

On the use of Bromide of Potassium in some cases of Insanity: By Hugh S. Fullerton, M. D., Assistant Physician Central Ohio Lunatic Asylum.

In an article on *Spermatorrhœa*, published in the first Volume of the *Cincinnati Journal of Medicine*, it is stated, as a rule, that when this trouble is *genital* in its origin, it can be relieved by the bromide, but that when it has become *cerebral*, the drug fails to produce the desired effect.

In such an institution as the one with which I am connected, we have fine opportunities for testing the virtues of this remedial agent, and I am led to believe that the hope of benefit to be derived from its use is by no ueans so limited as Prof. B.'s rule would indicate.

My experience proves about this:—that where insanity follows from spermatorrhœa *strictly*; where the patient is in a morbid cerebral condition, resulting from nocturnal seminal emissions, as a sequence of masturbation, or venereal indulgences discontinued, the bromide exerts a powerful influence to arrest the evil; even where the mind is plunged into the depest gloom of religious melancholy; where the mental aberration has led to attempts at suicide, or a high form of acute mania has been developed, still there is hope, provided one thing can be accomplished; that is, that the discontinuance of the local irritation be secured. Where there is enough will left to make moral considerations of any avail, or even where mechanical appliances can be continued sufficiently long to give rest to the racked nerves, the drug will be efficacious. But where the practice of masturbation is kept up, regardless of all appeals; where fuel is constatly added to the flame, in this way, no earthly power can save our patients from drivelling dementia.

We have many patients who come to us with mental trouble, resulting from the terrible nervous prostration produced by seminal emissions. In these cases we usually prescribe the bromide, in connection extr. bellad. about gr. xx—xxx of the former to gr. ss–j of the latter at bed-time. Continue ℞ for six nights and then omit for a week or ten days. Combined with these, are to be the ordinary precautions of diet, exercise, position in rest, etc., etc., and if a discontinuance of local irritation can be secured, the prospects for recovery are good.

But though it is chiefly in insanity arising from abuse of the procreative organs, that we use this agent, still we find it a powerful agent in allaying excitement springing from other causes.

Permit me further to occupy your time and space with the details of an instance where the sedative effects of this drug were exhibited very markedly.

Joseph R. was admitted Sept. 25, 1866; single; age 17. Duration of insanity about two weeks: attributed cause "sun-stroke;" has been highly excited paroxysmally. After admission he remained tolerably quiet, but silly and uncouth in action and language, until about the middle of October, when he began to grow gradually violent. By the 22nd of the month he was in a state of most intense excitement; screaming, tearing his clothes, lashing himself against the walls, perfectly uncontrollable; large doses of morphine had no apparent effect; digitalis sickened but did not

quiet him. I placed him in water, as warm as he could bear it, up to his neck, in the bathing tub, and poured, from a foot or more of elevation, bucket-full after bucket-full of cold water upon his head. This he relished hugely, yet within a half hour was as "high" as ever.

On the evening of the 24th, at five o'clock, I gave him gr. xxx. of the bromide, and repeated the dose at bed-time—(9 o'clock.) He had now slept none whatever, but had incessantly threshed and pounded, day and night, for a week. He slept, after taking the bromide, almost all night. The next day I repeated the ℞ with still more satisfactory results—he resting quietly through the night of the 25th. On the morning of the 26th, he gave us an insight to the origin of his trouble, by vomiting some worms. A good, old-fashioned dose of calomel, followed by castor-oil and turpentine, soon brought away great numbers of the common lumbricoid worm, and he became quiet and rational. I have only to add, as illustrating a frequent cause of insanity, that after a repetition of the dose, occasionally, during the next two months, he fully recovered, and was discharged in February.

His is but one of many cases where the highest state of maniacal excitement was alleviated by the bromide. In many conditions, depending purely upon functional nervous disorder, the administration of this agent is not only ameliorative, but directly curative in its tendency and results.

Astringents in Choleraic Diarrhœa. By Wm. Hays, M. D., Covington, Ky.

At this late day it may seem presumptuous, on my part, to pretend to advance any new theory, with regard to the treatment of a disease which has engaged the closest study, and the most acute observation, of the most learned of the profession; yet, we all think our own experience the best teacher in the study of our art, and are ever willing to intrude our theories upon our neighbors, thinking thus to gain converts to our views.

I do not propose entering into any discussion as to the causes of cholera, as to its portability, or as to whether it is contagious or infectious, but merely to advance a theory which presented itself to my mind while convalescing from a recent attack of illness.

It may be that it is as old as the disease itself, and *so simple* in itself, that it has never engaged the attention of the many who have had to contend with the hydra-headed monster. We of the present day depend too much upon the opinion of our neighbors, and adopt their plans of treatment, without inquiring into the *modus operandi* of the remedies proposed. On this principle we see it written by many, and practiced by more, that sulphuric acid will restrain a serous diarrhœa, opium will allay pain, etc., without inquiring into the condition of the different organs of secretion and excretion.

After my return from a visit into the country, about the 1st of December last, where my mode of living had undergone a complete reversion; where the articles of diet were differently prepared, and more freely partaken of; where the active exercise of my home life was entirely ignored; I was attacked with a diarrhœa. I thought but little of the first action; the second awakened me to a sense of my condition, from the quantity passed, the watery condition of the stool, the lack of fecal matter, and the great prostration attending it. I went to bed, and fortified myself with the following, viz:

℞. Dil. Sulph. Acid, ʒiv.
Tinct. Opii, ʒj.
Aqua Camph., ʒxij.

which I consumed in eight hours. I took this thus freely because the urgency of the symptoms demanded it, and because it was the teaching of some of the most able writers on the subject, but without any mitigation of the symptoms. I still insisted upon the use of astringents, and had a pill prepared of acetate of lead, opium, capsicum, and camphor. I persevered with these during the night; in the morning feeling so much worse, with some pain in the abdomen, and a slight cramp in my legs, I had Dr. W. called in; he gave me the remedies last mentioned, with the addition of a grain or two of calomel to each pill; these were continued during the day, and in the evening being no better, and having very much nausea, he prescribed for me calomel and soda. At bed-time I became quite sick, vomited freely, throwing up acid, opium, camphor and capsicum—all of which I recognized distinctly by their tastes. A mustard poultice to my abdomen, and a continuation of the calomel and soda during the night, presented me to the Doctor next morning very much improved, and this improvement began with the free emesis of the night previous.

Had I begun the treatment of my case with calomel, thus arousidg the dormant secretions, and followed this with astringents, I am confident that I would have been relieved in very much less time; but fearing lest the diarrhœa might be the precursor of cholera—of which there were several cases in my vicinity at that time—I began the treatment with astringents, etc. In the earlier stages, astringents are contra-indicated on physiological grounds; for are we not taught that the free and frequent introduction of astringents into an organ so delicate as the stomach, and so susceptible to irritation from the slightest cause, has the tendency of lessening its capacity, of staying its action, of closing the follicular apparatus, which secretes the gastric juice, and sealing the mouths of the very many absorbents that are eager and willing to take up those particles rendered fit for absorption by their admixture with the gastric juice.

It is an established physiological fact, that if food rendered acid by the addition of a little vinegar, is introduced into the stomach, the quantity of gastric juice is lessened, and the digestive process goes on very much more slowly. Applying this fact to our own, or any similar instance, where quantities of acids are taken, and then followed by astringents, opiates, etc., what must we expect? Can our medicines, which we expect to benefit our patients, act in any other way than as irritants? I have but little doubt, but that we would find, were we to examine the stomach of a patient who had been treated with acids, etc., with a pyloric orifice almost obliterated, and the contents a constant source of irritation, until ejected. This is a broad assertion, still I can not but *think* it has the odor of truth!

I believe astringents, etc., can be given with decided benefit, from the very inception of the disease, by enemas. There is nothing to contra-indicate their free use. When given thus, they come in contact with the biliary, pancreatic, salivary and gastric secretions, and are thus rendered fit for absorption. I would thus stay the flood, to some extent, until my *vis a tergo* would begin to act. Thus, those epithelium cells which cover the villi, instead of being thrown off in such quantities, as they are supposed to be in cholera, maintain their integrity, and act as receiving agents for the lacteals. This mode of treatment is in direct antagonism to that practiced by very many of our best men. We must unload the secreting apparatus as a first step toward any permanent relief. It

is on this principle that we nearly all agree upon the use of calomel; and does it not act more promptly when not given with astringents, etc.?

Cases of Puerperal Convulsions. By G. F. ADYE, M. D., Newtownsville, Ind.

March 18, 1865. Mrs. R—., aged 25, light complexion and blue eyes, of short stature; fourth labor.

Labor natural; continued for six and three-fourths hours, when she was delivered of a male child. Placenta came away with slight traction. No unusual symptoms except nausea and headache, which had about ceased when I left her, about one hour after delivery. Lochia free enough.

Four hours after delivery she had a severe spasm. I bled her freely, and administered calomel, aloes, and assafœtida. The paroxysms returned at intervals of ten minutes. I repeated the bleeding several times during the continuance of each convulsion, and the cathartic once.

The bowels were moved freely during the night. The lochial discharge had ceased; and she remained unconscious after the first spasm. Under the influence of sulphuric ether and morphia, the convulsions abated in frequency and violence until the fourth day, when they ceased entirely.

It is proper to remark that her mother, and sister, had formerly had puerperal eclampsia

September 7, 1865, Mrs. S—., aged 26; dark complexion and black eyes; of slender form; fourth confinement; presentation natural; labor continued 24 hours.

When called I found her complaining of nausea and headache. The membranes broke at six P. M.; at eight she had a convulsion, when I bled her and administered sulphuric ether one drachm, calomel, and aloes, followed in half an hour by one drachm of tincture of ergot. Spasms returned in one hour, when I again bled and repeated the dose of sulphuric ether, and ergot. At half past ten o'clock, she gave birth to a healthy female child, weighing eight and a half pounds. Placenta came away without assistance,

she had two more convulsions during the night; gave sulphuric ether and morphia, continuing them for forty-eight hours. The cathartic operated freely. She made a good recovery.

During her second confinement she had had puerperal convulsions.

November 15, 1866, Miss Susan F—., aged 16; of compact build; swarthy complexion; first confinement; had aborted several times.

When I saw her, she had been in labor for forty-eight hours; the os uteri was well dilated, presentation natural, and pains moderate. She had no headache or nausea. I ruptured the membranes, administered ergot, and in an hour and a half she was delivered of a fine healthy boy.

With slight traction the placenta soon came away. Lochia free.

Two hours after delivery she had a puerperal convulsion, to control which I gave calomel, nitrate of potash, and assafœtida, after bleeding sufficiently. The spasms recurred every forty-five minutes; during the intervals, she was partially conscious.

Sulphuric ether and morphia were given, and she had only one convulsion afterwards.

The bowels were moved freely. She died twenty-six hours after the birth of the child.

I do not know the cause of the convulsions in this case. Her nymphæ and clitoris exceeded the usual length by about two and a half inches; and her sexual desire amounted almost to nymphomania.

Trial for Malpractice. Reported by DR. DAVID PRINCE, Jacksonville, Ill. With Comments, by PROF. G. C. BLACKMAN.

[Continued from April Number.]

Dr. Carsten Holthouse, in his article on *Injuries of the Lower Extremity*, in *Holmes' System of Surgery*, Vol. II. p. 657, thus briefly disposes of dislocation of the foot *backwards*, or the forward luxation of the tibia.

"Dislocation of the foot *backwards* may arise from jumping off a carriage in motion, or from a fall backwards whilst the foot is confined: from either cause, the capsular, and part of the deltoid ligaments may be ruptured, the fibula broken above the malleolus, and the tibia forced from the astragalus on to the navicular and cuniform bones. The symptoms of this accident are, a shortening of the foot and a lengthening of the heel, with a depression above the

latter. The toes are pointed downwards, and the extremity of the tibia forms a projection in front of the ankle. Reduction may be accomplished in the same manner as in the last described dislocation (inwards), and a similar apparatus is sufficient for the after-treatment."

The apparatus recommended by Mr. Holthouse, both for the outward and inward dislocations of the foot, is, "two side-splints, with foot-pieces made of wood, leather, or gutta-percha, or the starch-bandage, strengthened with mill-board, must be applied and kept on for six weeks, the patient being allowed to go about upon crutches."

In alluding to the *forward* dislocation of the foot, Mr. H. refers to the fact that Sir Astley Cooper never saw a case, and that but few such are on record. One of the best described, he says, is that recorded by Mr. R. W. Smith, in the Dublin *Quarterly Journal of Medical Science*, May, 1852. In this case the fibula was not fractured, but the inner malleolus was broken.

Mr. Erichsen, in the 4th London edition of *The Science and Art of Surgery*, *p.* 326, remarks: "In the dislocation of the foot backwards, the deltoid ligament is ruptured, the fibula broken, in the usual situation, and the tibia thrown forwards on the navicular and internal cuniform bones; the foot is consequently shortened, and the heel rendered more projecting.,'

"This dislocation is always accompanied with fracture of the splint-bone of the inner ankle, or the latter is torn off." *South's Chelius System of Surgery*, Vol. II. p. 249.

In *Gross's System of Surgery*, Vol. II., p. 88, 3d edition, we find the following:

"Dislocations of the ankle-joint are among the most infrequent of traumatic lesions, the mechanism of the articulation being eminently unfavorable to their occurrence. The length and width of the malleoli render lateral displacement of the astragalus almost impossible, without concomitant fracture of one or both of the projections, while luxation in the antero-posterior direction is nearly as impracticable, in consequence of the extraordinary strength and firmness of the ligaments connecting that bone to the tibia and fibula. The effect is that these injuries are almost always of a complicated character; their chief interest depending upon the violence done to the neighboring structures. Most of them, in fact, should be viewed in the light rather of fractures of the tibia and

fibula, with displacement of the astragalus, than as dislocations, properly so called, of the ankle-joint. After a very careful examination of the records of surgery, I find that simple displacement of this bone, in any direction, is an occurrence of such extreme infrequency as hardly to deserve mention." Again, at p. 89, in describing dislocation of the ankle-joint *backwards*, he remarks: "The displacement is ordinarily accompanied by fracture of the inferior extremity of the fibula."

In reference to the statement of Prof. Gross, that lateral displacement of the astragalus is almost impossible without concomitant fracture of one or both of these projections, (malleoli,) we find quoted in Fabre's *Bibliotheque du Medecin—Practicien* (op. cit., p. 508,) that M. Alex. Thierry has reported on *L'Experience* t. iv. *un example tres curieux*, of luxation outwards without fracture of the malleoli. We might here quote from Fabre's *Bibliotheque* &c., p. 509, the statement that in the luxation of the foot backward, the foot preserves its normal *rectitude*, that is, it points neither outward nor inward; (*le pied a conserve so rectitude, c'est a-dire qu'il n'est devie ni en dedaus ni en dehors, et qu'il n' a subi aucun mouvement de rotation sur son axe antero-posterieur.*) And yet Mr. Bransby Cooper asserts that the foot is not only fixed in the extended position, but slightly rotated inwards." *Lectures on Surgery*, p. 315. When the luxation has been reduced, the after-treatment recommended by Mr. Bransby Cooper is the same as in the other varieties, viz., two splints should be applied, "each furnished with a foot-piece, so as to keep the foot protected from the influence of the muscles."

Mr. Amesbury, in his *Practical Remarks on the Nature and Treatment of Fractures of the Trunk and Extremities*, London, 1851, Vol. II, after observing that it rarely, if ever happens, that a dislocation of the ankle occurs without fracture of one or both bones of the leg (p. 453), thus describes the forward luxation of the tibia (p. 457):

"In the dislocation of the base of the tibia forward, the fore part of the foot appears much shortened, and the heel proportionably lengthened. The foot is fixed, and the toes are pointed downward. The lower extremity of the tibia forms a hard projection upon the upper part of the middle of the tarsus under the tendons, which it drives before it, and a deep depression is observed above the heel, accompanied with a preternatural curve at the back of the small of the leg.

"Upon dissection, the base of the tibia is found to rest principally upon the upper surface of the os naviculare and os cuneiforme internum, quitting all the articular surface of the astragalus, except a small portion of its fore part, against which the tibia is applied. The fibula is broken, and the fractured end of the upper portion advances forward with the tibia, while the lower portion, consisting of about three inches of the bone, commonly remains in its natural situation. 'The capsular ligament is torn through at its fore part, the deltoid ligament is only partially lacerated, and the three ligaments of the fibula remain unbroken.' Sometimes the tibia is split longitudinally through the inner malleolus.

"This accident sometimes arises from the body falling backward while the foot is fixed, sometimes from jumping, or from being thrown out of a carriage in rapid motion, with the foot pointed forward and downward when it comes in contact with the ground.

"The tibia is sometimes partially dislocated forward. In these cases the base of the bone rests partly upon the os naviculare, and partly upon the astragalus. The anterior part of the foot is not so much shortened in appearance, nor is the projection of the heel so considerable as when the dislocation is complete. The fibula is broken, and, though the malleolus of the bone remains in its natural situation, the two fractured ends are carried forward with the tibia; at least they have been so in the cases I have witnessed. The internal malleolus is sometimes split from the point upward, and one-half remains in its natural situation, while the other is carried forward. Sir A. Cooper states, that "the foot is pointed downward, and a difficulty is experienced in the attempt to put it flat on the ground. The heel is drawn up, and the foot is in a great degree immovable," but these are symptoms which have not hitherto fallen under my observation.

"This accident is, of course, much less severe than either of those already mentioned; but, if it be neglected, or treated merely as a sprain, the union of the fractured fibula and the changes in the state of the tendons and ligaments, as well as in the articular surfaces, soon prevent the possibility of reduction, even under the most violent efforts that prudence could employ. Hence the deformity becomes permanent, but patients are able to walk after the lapse of some months with a limp, which arises in a great measure from an inability to bend the foot upon the tibia, as far as the parts in the natural state allow.

"For the successful management of the various kinds of dislocation of the ankle, what do we require? Means to remove active inflammation, and adequate mechanical support. The first object is to be attained by the application of leeches, sedative lotions, aperient medicines, etc., as in other injuries of similar violence; using them more or less vigorously, according to the age and constitution of the patient, the degree of mischief sustained, and the condition of the parts to be restored. The instrumental aid required, is such as will enable us to apply effectual pressure and resistance in any situation that the nature of the dislocation may indicate—such as will enable us to support the bones in their natural situation when they are once reduced, and, at the same time, prevent the foot and the leg from moving upon each other.

"We are recommended by a cotemporary author of great experience, to make use of a pair of splints with a lateral foot-piece, in other words Sharp's leg-splints, with the addition of a lateral foot-piece to the inner splint (*see* p. 398), and of the same construction as that for the outer splint. When these splints are employed, the limb is placed between them as soon as the bones are reduced, and we are told to lay the limb on the outer side in the bent position, in dislocations outward or inward, and upon the heel in dislocations forward. Is this a plan of treatment, I would ask, calculated to support the parts in their proper position, and to restore the natural functions of the limb in either of these varieties? It is a plan which looks very plausible in theory, but it does not do in practice. Even in dislocation inward, which is the most simple variety to treat, the support which these splints afford is very precarious. The tibia slips off the astragalus in many instances, and, if not as frequently replaced, the consequences are permanent deformity and lameness. But it might be said that the splints should be applied with a sufficient degree of firmness to prevent the displacement of the tibia. Can this be done in the early—the most important stage of the accident, when there is usually considerable inflammation and tension—without infringing upon one of the soundest rules of surgery? Were this practice followed, it strikes me, that in some cases the consequences might be serious.

"In dislocations of the tibia forward, we find it expedient to force the foot forward, and at the same time to press the tibia backward, so as to keep it steadily upon the astragalus; but how are these indications to be answered? We are directed to make use

of the same description of splints in the management of these cases also; but can these splints be applied so as to produce these effects? We are told to lay the limb with the heel resting on a pillow; but will the pillow, which yields in the greatest degree where it is most pressed upon, be sufficient to keep the foot forward, or will the tibia be prevented from slipping forward off the astragalus by this plan? The means appear to me so inadequate to produce the effects intended, that I can not bring my mind to believe that these splints will generally be found sufficient for these purposes, however well padded and managed. It might be said that, if the foot be kept steadily placed, so as to form a right-angle with the leg, the articular surface of the astragalus will rest in the concavity of the base of the tibia, which will consequently be prevented from slipping forward. I grant that if the foot be so placed and so kept, displacement is not likely to occur when the base of the tibia is not injured; but every body knows that mechanical apparatus can not with propriety be applied tight to parts in a state of active inflammation; and that, if the foot becomes slightly extended by the action of the gastrocnemii muscles, there is nothing in these splints to prevent the tibia from slipping forward, even when entire; and if a portion of the base be split off, I see no chance of supporting the parts in their proper relative position by this mode of management. The surgeon in these cases, is often put to his wits'-end to do the thing he wishes. He tries a variety of means that occur to him, or that his friends suggest: if one thing does not answer, he tries another; if that does not succeed, he tries a third, etc., always, of course, endeavoring to replace the parts into their natural situation, before the employment of each variety of mechanism. This, to say the least of it, must be attended with great suffering to the patient; and, after all the anxiety which every surgeon must feel under such circumstances, after all his endeavors, and the patient's sufferings, what do we find to be the usual result? Most commonly the patient comes off with a deformed limb, and the surgeon with loss of reputation.

"The difficulty of managing even partial dislocations of the base of the tibia forward, by any of the common means, is found to be considerable. Of this the following case is a striking instance.

"As a lady, residing at Paddington, was taking an airing in her gig, the horse became restive, and the servant losing all command over it, the animal ran away, and the wheel of the gig came in

contact with the edge of the foot-path, and the lady was precipitated violently upon the stones, which she struck first with her feet. I was first called to see this lady about eight weeks after the accident. I found the tibia had been fractured longitudinally through the malleolus, but the fracture was not apparently complete. The largest portion of the base of the tibia was carried forward, and rested partly upon the articular surface of the astragalus, and partly anterior to it, leaving a fissure between it and the other portion, which remained connected in its natural situation. The fibula had been fractured about two inches and a half above the point of the malleolus, and the two fractured ends were carried forward, with the anterior portion of the tibia, so as to form an angle projecting forward in the situation of the fracture. The foot appeared shortened anteriorly, and the heel projected more than natural; there was, also, the usual concavity observed in these cases at the back of the leg.

"I was requested to see this lady, for the purpose of replacing the parts into their natural situation; but it was now too late. The fibula had become united, and the tibia was confined to its new situation by strong adhesions. I was strongly urged to break the bone by some violent means, in order that the deformity might be removed; this, however, I refused to do, believing that no good effect would be produced. The late Mr. Cline, sen., was now called to see this lady in consultation, and agreed with me, that nothing could be with propriety attempted for the restoration of the parts.

"This lady had the constant attendance of an experienced hospital surgeon before I saw her, and had been seen several times, in consultation, by men of the first eminence in the profession; but, notwithstanding their able advice and assistance, the result was permanent deformity and lameness.

"When the dislocation is forward, the surgeon, having replaced the parts, must bring the foot up to form a right-angle with the tibia, and regulate the elevation of the heel very carefully by means of the shoe, and keep back the base of the tibia upon the articular surface of the astragalus, by a four-headed roller, applied so as to pass round the leg over the apparatus. The unsplit part should be placed in front of the leg, a little above the joint, and the ends brought together and tied at the side of the apparatus, sufficiently close to keep up a steady and gentle bearing upon the front of the leg.

"The apparatus thus applied, effectually prevents the tibia from advancing forward, and the heel from being drawn backward, which can not be done without great danger of repeated displacement, by any other apparatus with which I am acquainted. The side-splints should now be applied, in order to give lateral support to the leg and foot. These should be confined to the foot-board at the lower end, by means of tapes, and the upper ends should be kept in contact with the leg, by a circular strap, passed round the leg over them and the apparatus just below the knee.

"When the limb is thus confined, we can apply any kind of lotion to it, without disturbing the injured parts; and by throwing back the side-splints, we have the limb sufficiently exposed to view for the application of leeches, should local depletion be required."

Mr. Lizars, in his *System of Practical Surgery*, Edinburgh, 1838: p. 180, after alluding to a case of luxation of the tibia backward, the only instance which ever came under his observation, and which was successfully treated by means of McIntyre's splint, thus speaks of the forward luxation of the tibia: "Luxation backward (of the *foot*—Ed.) is very uncommon; only one instance of this have I seen. The tibia and fibula are forced forward on the naviculare, giving the foot a shortened or club appearance; the lateral ligaments and fibrous capsule are lacerated. To be reduced as the immediately foregoing, only making pressure on the tarsus in the opposite direction. The after treatment is the same."

The late Mr. Vincent, who was for a long time senior surgeon to St. Bartholomew's Hospital, London, in his most interesting and valuable treatise entitled *Observations on some of the parts of Surgical Practice*, London: 1847, p. 87 thus remarks:

"The luxation of the tibia forward is not an unusual case: we find the end of the bone is brought in front of the astragalus, and in various degrees of displacement. This dislocation implies a fracture of the fibula, somewhat lower down than in the last case, which I have always found to be the case when the displacement was considerable. I have said the tibia is advanced forward in various degrees; and therefore, as it is only slightly so on some occasions, it behooves surgeons not to set such a case down as a fracture of the fibula only, as I believe is often done; for otherwise the injury may leave imperfections which could have been

avoided, had a correct view been taken of the case originally. If the tibia be advanced forward upon the astragalus, even in a very slight degree, it prevents, when the injured foot is behind the other, that free motion of the foot upon the leg, and the formation of an acute angle between them, which is so necessary, in progression, and thus a hobbling gait is produced. The surgeon should be accustomed to calculate all the bearings of the pricipal parts of the foot, and to measure distances between them.

"The conditions of this accident are, that the external malleolus does not lose its connections, the external ligament being entire, but the fibula is broken above; therefore the upper part of this bone advances with the tibia; the internal lateral ligament must give way to allow the tibia to come forward. This advance of the leg upon the foot is equal to throwing the axis of motion so far forward, that the foot is under a longer lever for the muscles behind to act upon; and agreeably to the positions laid down, the foot being extended upon the leg, the position in which the gastrocnemius is used to act most powerfully, this muscle exerts all its force to draw the heel upward, and continue the displacement to the utmost. However well the surgeon may adapt the parts, yet a very slight movement of the patient will be enough to displace them; but perseverance will fully complete his purpose, and he will find, by daily adjusting the disturbed parts, that they will each time he does this, appear less deranged, and thus, before many days, quietly remain in their proper position. In this determined way of continually rectifying the irregular changes, I have seen these cases turn out very well, giving the patient the perfect use of the joint. If the patient be placed on the side, the leg bent on the thigh, and the foot upon the leg, the surgeon will find that the muscular system lies in the greatest possible state of repose. When he bends the foot, whilst it is extended, he will find every instant of time employed in this operation, the opposition of the gastrocnemius until it arrives at its greatest flexion, and then the muscle ceases to act in opposition. There is an endowed power that always assists with its efficacy the tendency to natural arrangement; and this influence being maintained by continual readjustment, distortion is prevented. The simplest apparatus is necessary; and all coercion of the muscles is to be shunned. It is this case, both in reference to the difficulties I have had to contend with, and the facilties afforded by adopting the correct view under

which muscles act, which has convinced me that there is a doctrine applicable to muscular action that has not hitherto been alluded to."

Mr. Jas. R. Lane, in the new edition of Samuel Cooper's *Dictionary of Practical Surgery*, edited by Samuel A. Lane Esq., (London: 1861,) Vol. 1. p. 575, remarks that in dislocation of the tibia forward, "the fracture of the fibula is noticed by nearly all writers on the subject, and is certainly found in the great majority of cases. It is not however constant. Mr. R. W. Smith (*Dublin Quarterly Journal of Medical Science*, May, 1862, p. 471), speaks of having seen two cases of this dislocation, in which it was not present. This case is much more difficult of reduction than the instance in which the foot is thrown inwards; and the cause is owing to the powerful manner in which the muscles resist the extension of the parts, and the placing them in their natural position again. As Dupuytren observes, it is true that such resistance may be lessened by relaxing the muscles, and drawing the patient's attention from his limb; plans which fully answer for the reduction of the dislocation inward, yet in that now under consideration, they are insufficient, and here a greater effort is required to bring the foot from behind forward, and place the astragalus under the tibia. And a still greater difficulty is to keep the parts reduced during the time necessary for the fibula and torn ligaments to be firmly united. In fact, the upper surface of the astragalus, which is convex from behind forward, is so slippery, that it is hard to make the tibia rest securely upon the articular pully of that bone, which is itself incessantly acted upon by the extensor muscles of the leg, so as to have a tendency to slip behind the lower end of the tibia. In addition, therefore, to the bent position, Dupuytren deems it necessary here to employ an apparatus, which propels the foot forward, and the lower end of the tibia backward. (*Annuarie Med. Chir.* p. 188.) The apparatus already recommended for the lateral dislocations (McIntyre's), is equally appropriate for the dislocation of the tibia forward; with it the heel can be well supported, and the foot maintained at a right-angle with the leg and if necessary, pressure can be made by means of pads upon the anterior surface of the lower extremity of the tibia. Care must be taken, however, that the heel is not subject to too severe a pressure, or sloughing of the integument will be very likely to occur. If there is much difficulty in the reduction, chloroform should be used

for the purpose of obtaining more muscular relaxation, and if there is much difficulty in maintaining the bones in their place, subcutaneous division of the tendo-Achillis may be resorted to with advantage."

[TO BE CONTINUED.]

Croup.—Translated from Niemeyer's Lehrbuch der Speciellen Pathologie und Therapie. By SAMUEL NICKLES, M. D.

[Concluded from April Number.]

Diagnosis.—We have already, in the discussion of the symptoms and course of the disease in question, directed attention to the resemblance necessarily subsisting between croup and catarrh of the larynx; and here desire once more to draw attention to the fact, that the croupous membranes which adhere to the pharynx, are almost as important, in the diagnosis, as the membranous masses expelled by coughing and vomiting; that dyspnœa is rarely, and then only transiently, observed in laryngeal catarrh; and, lastly, that in most cases, laryngeal catarrh is unattended by febrile excitement, while croup is marked by severe fever.

Prognosis.—Children over seven years old may survive very intense forms of croupous laryngitis. The disease, on the contrary, belongs to the most dangerous in early childhood. The splendid success boasted of by many physicians must be accepted with much caution, as, in many cases, it is based on mistakes in diagnosis. Evidently, the epidemic prevalence of croup will render the prognosis worse, and, although it may be going too far to designate those cases complicated with croup of the pharynx as absolutely fatal, yet it is not to be denied, that this complication will aggravate the disease.

Among the symptoms of croup, the anxiety, restlessness, full pulse, reddened face, hoarseness or loss of voice, are of far less prognostic significance than the first indications of blood-poisoning. If the face becomes pale, the lips colorless, the sensorium stupified, the child sleepy; if emetics, which have been administered are ineffectual, while spontaneous vomiting sets in, we may expect a happy issue in but few cases.

Therapeutics.—The prophylaxis of croup demands the same means which we recommended for the prevention of laryngeal ca-

tarrh. Children having surmounted an attack of croup, should on no account be confined to the room, or dressed too warmly. Yet mothers should be warned not to regard the beautiful sunshine alone, and send their children into the open air, without observing the course of the winds; on the contrary, in cases of marked predisposition to croup, the direction of the wind should be observed for some time, so as to guard the children against the influence of a sharp north or north-east wind. It is likewise proper to keep children off the street after sundown, for some time. Finally, cold ablutions of the neck and chest, if the skin is carefully dried afterward, must be regarded as excellent prophylactic means when there exists a predisposition.

The indication to remove the causes can not be met in most cases, as the causation of croup is still obscure. With the laity, it is, of course, a fixed fact, that croup is the result of taking cold. Children in the least hoarse are treated with incredible quantities of hot, sweet milk, which is here preferred to elder-flower tea. Not until the children sweat, are they supposed to be out of danger, and the imaginary foe driven from the field. Similar results are claimed by the schoolmasters, who practice hydropathy, from forthwith wrapping the body in wet sheets, by which they, "in a great number of cases, attain the most splendid results," as the suppressed activity of the skin is most surely restored by their procedure. Though taking cold may excite many cases of croup, yet this process is certainly not so simple, that the severe disturbance in the nutrition of the mucous membrane of the larynx is adjusted as soon as the body gets into a perspiration. In catarrh, it may be otherwise; if hyperæmia alone produces the swelling, etc., of the mucous membrane, a large increase of the peripheral circulation may deplete the mucous membrane, and thus remove the cause of the catarrh. But, as it is difficult, or impossible, for the laity to distinguish catarrhal from croupous laryngitis; as even the physician, called at night to a child that is hoarse, and in addition to a rough and barking cough, suffering from dyspnœa, can frequently, only after further development of symptoms, distinguish the two forms of disease from each other; it may be well to instruct, in such cases, to administer, until the arrival of the physician, warm drinks, to cover the child well, and apply sponges, which have been steeped in hot water, to the throat.

In some cases, particularly of epidemic croup, the inflammation

seems to extend from the mucous membrane of the pharynx to that of the larynx. Here it is necessary to interfere energetically, as soon as the patches of false membrane are discovered. The physician should not stop to apply leeches to the throat, as this is a measure of very doubtful efficacy; but should rather remove the patches and energetically apply the nitrate of silver to the diseased mucous membrane—a course by far more reliable.

In regard to the indication to remove the morbid condition. many physicians, particularly in the country, immediately apply leeches, and administer emetics as soon as the first symptoms of croup are recognized; the leeches to moderate the inflammation—the emetics to remove the false membrane; and nobody seems to have the courage to adopt an expectant course until special conditions demand positive measures. For the experience that croup cases may recover without the use of leeches and emetics, we are indebted principally to the homœopaths. Leeches, of which one or two may be applied to the manubrium sterni, or to the neck, in children under one year, subsequently increasing the number with the age, are, even in croup, of very doubtful virtue; in most cases, they are positively hurtful. Their recommendation is based, chiefly, on the erroneous opinion that hyperæmia and inflammation coincide; that therefore the withdrawal of the blood will remove the inflammation. The real inflammatory process is not interrupted by bloodletting, although this may moderate the collateral hyperæmia in the neighboring parts. Should a stasis occur in the vessels of the laryngeal mucous membrane, if the current of blood in them is interrupted, the blood would flow with augmented force into the vessels of the neighboring tissues, causing transudation, swelling and œdema. From the last condition, we have deduced a part of the danger of croup; if, therefore, our patients are well-nourished, blooming children, we may apply a few leeches to the manubrium sterni, but not in other cases. They should never be applied to the larynx itself, as it is difficult to arrest the bleeding there; and in all cases, the leeches should be applied by the physician, or by some reliable person who knows how to stop the bleeding. In weakly, ill-nourished children, bleeding is contra-indicated; it is highly dangerous to exhaust the strength upon which the ability to expectorate will afterward depend. The exudation can not be prevented by blood-letting.

As to the administration of emetics, the revulsive effect by which

they are to exert an influence is quite problematical; still less is to be expected from their diaphoretic influence. They are only then indicated *when obstructing croup membranes form an essential part in the dyspnœa, and when the efforts at coughing are insufficient to remove them.* We mentioned, when describing the symptoms, that the simultaneous aggravation of the expiration admits, with much probability, the conclusion that false membranes narrow the aperture of the glottis, and we look upon this symptom as particularly indicating emetics. As the formation of pseudo-membranes may begin very soon, an emetic, under these circumstances, may be early required. In the treatment of croup, sulphate of copper, as an emetic, has been properly preferred to ipecachuana and tartar emetic; we should be careful, however, not to give this remedy in too small doses, as then, acting uncertainly, it will be more likely to produce the phenomena of poisoning, than when given in larger doses. Ten or fifteen grains of sulphate of copper should be dissolved in two ounces of water, and a dessert-spoonful given every five minutes until emesis results. The more perfect the remissions which take place after the vomiting, and the more abundant the pseudo-membranes expelled, the earlier should we repeat the emetic when the dyspnœa again increases and exhibits the specified peculiarity. Ii no remissions occur, and no croup-membranes are expelled, and if expiration is unobstructed, the further exhibition of emetics is contra-indicated. This rule is often violated. How often do we see children, though they no longer vomit, incessantly fed with the active salt of copper, which has lost all effect! They lie deluged in the blue-colored fluid, which, mixed with coagulated milk, passes from the anus; in vain they turn aside their heads, and knock away the spoon containing the disgusting medicine that causes them nausea and tormina.

Cold, in the form of rapidly changed cold compresses, applied to the neck of the child as soon as the first signs of croupous laryngitis become evident, deserves an extensive trial. Our success will be considerably greater in families that are not afraid of the application of this measure, than in houses where the prejudice against it can not be overcome. The application of cold to the external integument, in inflammation of internal organs, as first recommended by Kiwisch, in puerperal peritonitis, appears indeed to act as a direct antiphlogistic, however difficult to understand its influence on organs separated from the place of application by skin,

muscles, etc.; experience here must be preferred to physiological explanation.

We have already recommended the application of nitrate of silver to the mucous membrane of the fauces, as a direct antiphlogistic; and can not urgently enough recommend the trial to apply a solution of nitrate of silver to the inflamed mucous membrane of the larynx, as is extensively practiced in France, but still too rarely among ourselves. Bretonneau, with whom this local treatment of croup originated, makes use of a curved whalebone, to the lower extremity of which a small sponge is fastened. This being dipped into a concentrated solution of nitrate of silver (ʒss to ʒii), the tongue of the child is depressed, and the sponge brought to the opening of the glottis; here the sponge is compressed by the muscular action that immediately takes place; certainly a part, although perhaps a very small part, of the fluid passes into the larynx.

Whether calomel has any antiphlogistic, or even specific effect, on croup, is indeed problematical; yet I can not deny that some of the highest authorities maintain the favorable action of this remedy in the treatment of croup. I give it in one-fourth to one-half grain doses every two hours, in most of my cases of croup; but my experience teaches me to shun the ordinary small doses of tartar emetic and sulphate of copper.

When called to a child which has just been attacked with croup, we must not permit ourselves to be misled into the belief that the child will die in a few hours, if we do not interfere energetically. Only under the circumstances, already mentioned, should leeches be applied, and care should be taken to keep the after-bleeding within proper limits. In most cases, we should confine ourselves to the cold applications, and not hesitate to apply the compresses ourselves, until the parents observe that the child is relieved by them. If the child is constipated, we may, to give the diaphragm free play, administer an injection composed of three parts of cold water to one of vinegar. Should the dyspnœa increase, and expiration become difficult, a full emetic must be given, without, however, discontinuing the cold compresses. Under the circumstances mentioned above, the emetic may be repeated; if, however, no remission takes place, the solution of nitrate of silver should be applied to the opening of the glottis, at intervals of several hours. We must not forget, during the night, that the first morning hours

generally bring a remission ; so, too, we must recollect during the next day, that notwithstanding the improvement, the succeeding night may again bring great danger. However well the child may feel, it must not leave its bed ; the temperature of the room must be regulated according to the thermometer, and kept moist by open vessels of water. Half a grain of calomel is to be given every two hours, the cold compresses changed less frequently, and now covered with a piece of flannel ; the application of nitrate of silver is to be continued, but at longer intervals. During the next night, if the disease exacerbates, the same means will be required.

If this treatment is unsuccessful, and no improvement takes place in the course of the next ten or twelve hours, we should not waste more time in the use of vesicatories or expectorants, sulphur, or other remedies which have been vaunted as specifics, but *resort at once to tracheotomy*. The earlier this is performed, the more reason we have to expect that bronchial catarrh, hyperæmia or œdema of the lungs, will not militate against the success of the operation. Though the results be unfavorable in very many cases, yet there are none in which it can be neglected after other means have proved futile. And death, even should it occur after the performance of the operation, is far less painful to the child, and relatives, than if the operation had been neglected.

The indication presented by the symptoms requires, besides the means already considered, that we regard the paralytic phenomena which we have pointed out as the results of poisoning of the blood by carbonic acid. As the most powerful excitant, which enjoys also a good reputation in poisoning from the vapor of charcoal, we may recommend affusions of cold water, while the child is placed in a warm bath. A resort to it should not be neglected, when the child becomes sleepy and stupid, when its skin feels cool, or, when emetics, now urgently required, remain inoperative. Of less effect, and only to be administered when unconquerable prejudices oppose the affusions, are other stimulants, especially camphor and musk, of which large doses must be given in such cases, particularly before administering emetics. Two buckets-full of cold water, poured from a moderate height over the head, neck, and back of the child, immediately after the bath, almost always produce consciousness, a more powerful cough, and the expulsion of masses of coagulated exudation.

Poisoning by Petroleum. By G. W. HAILE, M. D., Cincinnati.

Mary ———, æt. eighteen months,—a fleshy and healthy looking child, having never before been sick, according to the statement of the mother, and nursing—on the evening of November 24th, drank petroleum in an indefinite quantity.

It appears that the mother was filling the lamp, and leaving the can unstopped, within reach of the child, went out of the room; another little girl being present, but having her back turned to her hearing some disturbance, turned around, and perceived the child with the spout of the can in her mouth, drinking the oil, having spilled a quantity on her clothing. She immediately raised the alarm, and when the mother came she found the child in a very hard convulsion. An old lady coming in, gave the child six teaspoons-full of butter; the convulsion being repeated, the father came for me, saying he thought the child was dying. When I arrived, which was about fifteen minutes after she had taken the oil, I found the child much inclined to sleep; pupils slightly contracted; had a kind of spasmodic cough; rolling its eyes up, occasionally; breath smelling very strongly of the oil; had the appearance of being very sick. I gave an emetic of ipecac, with plenty of salt and warm water; this not acting, repeated the dose without any effect; then the sulphate of zinc was given; this acting, was assisted with warm water, which washed the stomach out thoroughly, the water ejected smelling very strongly of oil; afterward gave a dose of ol. ricini, with demulcents. The child seeming much disposed to sleep, ordered a little carb. ammoniæ through the night; the oil acted well, and in two days afterward we found the child appearing well, excepting, perhaps, being a little feverish.

In the *Medico-Chirurgical Review*, April, 1866, we find a record of two cases which we give below:

Dr. Mayer, of Antwerp, relates in *Journal de Bruxelles*, May, 1865, a case of poisoning by a glass of petroleum which was drunk in the dark, by mistake, for a glass of beer.

About half an hour afterward, Dr. Mayer found the patient pale, restless, with eyes sunken, strongly contracted pupils, the irides insensible to light; hot, dry skin, weak voice, and short, quickened

respiration. The pulse was excited, hard, incompressible,—60 in the minute, and afterwards fell to 48,—the ordinary number of pulsations in health was 80. The patient complained of an indescribable feeling of malaise, great anxiety, and a sensation of constriction at the diaphragm, and in the pharynx. Consciousness was undisturbed. The breath had no odor of petroleum. In spite of the administration of tartar-emetic, and of tickling the fauces, no vomiting occurred; neither fæces nor urine was discharged. After the epigastrium had been rubbed with a flannel, dipped in eau de cologne, the patient had eructations, smelling strongly of petroleum, and afterwards vomited copiously, undigested food having the same odor; immediately after which an improvement took place; the pulse became quicker, the skin warmer, the pupils dilated, and the sensibility of the iris to the light returned gradually.

The vomiting recurred frequently, and always with an odor of petroleum; the patient had a copious stool, slept well through the night, and was quite well the next morning. The urine throughout the whole of the next day, still had a marked odor of violets.

Dr. Mayer remarks that the petroleum appears to have produced total paralysis of the stomach and alimentary canal, so that emetics had no effect, and the food which was vomited four hours after the poison was taken, showed no traces of digestion.

It was only through the stimulation produced by rubbing the epigastrium, that vomiting was excited. The retardation of the pulse Dr Mayer ascribes to the anæsthetic action of the petroleum, which action also shows itself locally in the anæsthesia and paralysis of the digestive canal.

The recovery of the patient from so large a dose of the poison, may, in a great measure, be atributed to the circumstance that he had had previously a full meal, which thus prevented the petroleum from exerting all its action on the stomach.

A case of poisoning by petroleum is also recorded in the *Journal de Chimie. Med.* The patient drank a small glassful of petroleum in a cup of coffee. The symptoms and results are not given. Cases of poisoning by petroleum have also been recorded by Weinberger—(*Schmidt's Jahrb,*' CXXI, 34,) and by Clemens (*ibid.*, CXXV, 294,)—(*Schmidt's Jahrbucher, Baud,* CXXVII, 1865, No. 9.)

On the Detection of Lung-Tissue in the Expectoration of Persons Afflicted with Phthisis. By SAMUEL FENWICK, M. D. From *Medico-Chirurgical Transactions;* Vol. 49.

It frequently happens that the physical examination of the chest fails to afford decisive evidence of tubercle in persons whose symptoms have led the physician to suspect its presence. Under such circumstances the examination of the expectoration by the microscope for pulmonary tissue has been recommended by various authors, as likely to be of the greatest service.

I have included in the following paper the results obtained from the microscopical examination of the sputa of 100 real or suspected cases of pulmonary consumption, in the hope of showing what advantages we may expect to derive from this method of investigation, and how far the microscope is capable of confirming or correcting the information furnished by auscultation and percussion.

All the cases here reported were treated at the Victoria Park Hospital, either by myself or by my colleagues, and I take this opportunity of thanking them for their courtesy and kindness in granting me opportunities for observation which the out-patient department was unable to afford.

Dr. Andrew Clark has recommended that the expectoration should be poured upon a flat surface, and the particles suspected to consist of elastic fibre should be picked out with needles and placed beneath the microscope.

Now, although large pieces of lung-tissue can be detected by this method, it is evident that the smaller fragments may be easily overlooked, and that consequently our inability to discover elastic fibre in this way is no sure evidence that none is present in any particular specimen of expectoration.

On this account I have adopted the plan of liquefying the sputa by means of pure caustic soda, when any particles of lung that may be contained in it fall to the bottom of the vessel, and can be removed and placed beneath the microscope.

In order to test the accuracy of this process I performed numerous experiments, of which the following is an example:

One tenth of a grain of lung-tissue was divided by needles into ten parts, and the $\frac{1}{1000}$th of a grain thus obtained was placed in

the expectoration of a person affected with bronchitis, it having been proved by previous examination to contain no elastic fibre. The mucus was liquefied by boiling it with a solution of pure soda, and the mixture then pourd into a conicial-shaped vessel. The particle of lung was easily removed and recognised by the microscope.

But as the $\frac{1}{100}$ part of a grain of lung consists of from twenty to thirty air-cells, and as the presence of elastic fibre can be determined with the greatest certainty by means of the microscope, in half, or even in a smaller part of a cell, it is evident that it might be possibe in this way to detect $\frac{1}{4000}$ to $\frac{1}{6000}$ part of a grain of pulmonary structure in the sputa of patients affected with phthisis. Such minuteness is, however, never requisite, as we need no more expect to meet with a part of an isolated air-cell in the expectoration than to be consulted by a patient with a single tubercle in his lungs. In one case I counted in the mucus coughed up in only twelve hours, as many as 800 fragments of lung, and we generally find from fifty to sixty pieces even where, from auscultation, we should have expected but a small amount of destruction to be going on.

I have detected numerous fragments of elastic fibre in the mucus expectorated in only half an hour, but as the amount of lung expelled seems to vary at different times of the day, the only safe plan is to liquefy the whole of the sputa of twenty-four hours, or, if it is difficult to obtain the expectoration for so long a period, to examine what is coughed up during the night and early morning.

I have only once found, on a second examination, pulmonary tissue when I had on a previous trial failed to discover it. This was in the case of a patient affected with a cavity of long standing, and in such cases it will be wise for the physician to re-examine the expectoration after a few days' interval, if on the first examination he should fail to obtain evidence of the presence of the elastic fibre.

In phthisis there are, in reality, only two stages, viz., those of deposition of the tubercle, and a cavity; for as soon as softening commences fragments of lung are expelled, and necessarily cavities are produced; but as the miscroscope should always be used as an adjunct to auscultation, I have grouped the cases contained in this paper under the three stages generally recognized by auscultators, viz: deposition, softening, and cavity.

1. STAGE OF DEPOSITION OF TUBERCLE.

The expectoration was examined by microscope in twenty-four cases in which phthisis in its earliest stage was either suspected or was diagnosed by the stethoscope, and in thirteen of these fragments of lung-tissue were diicovered.

In seven of the twenty-four no physical signs of disease in the lungs were found, but the existence of tubercle was suspected either on account of the occurrence of hæmoptysis or from the history of the case showing an hereditary tendency to consumption in persons affected by cough, expectoration and loss of flesh; no elastic tissue could be found in the sputa of any of them.

The microscope therefore failed as completely as auscultation in proving the existence of phthisis in this difficult class of cases, and I cannot help suspecting that in many of these the symptoms arise rather from the general derangement of health preceding the formation of tubercle, than from an actual deposit in the pulmonary tissue.

In sixteen cases auscultation and percussion afforded indications sufficient to justify the suspicion of the existence of tubercle, and in thirteen of these, lung-tissue was found in the expectoration. Of the cases in which it was absent, one had never suffered from hæmoptysis, and the physical indications were a doubtful deficiency of resonance under the right clavicle, with feeble inspiration; rhonchus existing in other parts of the chest. Another had been ill six years, and there was deficient resonance under the right clavicle, with feeble inspiration. The third had suffered from hæmoptysis, and presented harsh inspiration and prolonged expiration under the right clavicle.

In the cases in which lung-tissue was found in the sputa, some presented deficient resonance on percussion under the clavicle, or in the supra-scapular region. In some there were "clicks of dry rhonchus," diminished, or harsh inspiration, or prolonged expiration, and in some, increased vocal resonance in the apex of the lung, combined with the general symptoms indicating phthisis. All were examined with the double stethoscope. In these the amount of lung-tissue coughed up, was smaller than in persons in the later stages of the disease; and the proportion of fragments of isolated air-cells was unusually large, and the pieces of bronchial tubes were of small size.

The microscope is, therefore, in this stage, a most valuable adjunct to auscultation, inasmuch as it shows that in the majority of cases in which physical signs of the existence of tubercle are present, softening of the deposit has already commenced, and lung-tissue, in small quanties, is being expelled. Nor is it of less value when it proves that no ulceration is taking place, for such a fact should induce us to look hopefully upon such a case, and should encourage us to persevere in our endeavors to ward off attacks of inflammation.

2. STAGE OF SOFTENING.

In twenty-four cases there were well marked signs of this stage, consisting of greater or less amount of dullness on percussion, with numerous rales, and in all of these a single trial showed the existence of lung-tissue in the sputa. The amount of lung expelled is generally greater in this than in either of the other stages of the disease. As the other means of diagnosis at our disposal are usually sufficient to point out the true nature of such cases, the microscope will, in all probability, be only useful as a confirmation of the truth of our opinion.

But there is another class of cases in which the stethoscopic indications are more obscure, and in this microscopic investigation is likely to be of the greatest value. The following case is an illustration of this remark:

CASE 1.—A man, æt. 27, applied at the hospital, complaining of cough, copious expectoration, severe sweatings, and rapid loss of flesh. He had only felt ill for two months, but his pulse was very quick, and his voice whispering.

There was no dullness on percussion, but a dry rhonchus was heard on the whole of the anterior part of the chest, and mucous rales were present at the base of each lung. The microscopic at once showed the nature of the case by detecting sixty fragments of pulmonary tissue in the mucus expectorated during only five hours.

There is, again, another class which often causes much doubt and anxiety to the practitioner, viz: where rapid loss of flesh and severe night-sweats take place in a person who has for many years been affected with chronic bronchitis. Here, the existence of emphysema often masks any dullness on percussion that might otherwise be produced by the tubercular deposit, and auscultation fails

to afford decisive evidence as to the actual nature of the disease. Of this the following is an example:

Case 2.—A man about forty years of age applied to the hospital, with cough, expectoration, and rather rapid loss of flesh and strength. He had been for four years subject to bronchitis in the winter, but had each summer been relieved, and he felt confident that, as soon as the warm weather returned, his symptoms would be again alleviated. He had never had hæmoptysis. There was no distinct dullness, and the cardiac region was very resonant on percussion. There was loud and harsh inspiration, both at the front and back of the chest, with mucous rales below the clavicle. The microscope showed forty-three pieces of lung tissue in the expectoration.

I examined the sputa of fifteen cases in which auscultation afforded doubtful evidence of the existence of tubercle, and in seven I found pulmonary tissue. On the average, the proportion of bronchial tubes amounted to fourteen per cent. of the fragments of lung-tissue in the expectoration. It is worthy of remark that this is nearly the same proportion as was found in the cases which are considered by stethoscopists to be in the stage of "deposition of tubercle," whilst where decided dullness and mucous rales existed, the proportion of tubes formed only nine per cent. May not this difference arise from the tubercle being more deposited, in the former class, in the mucous membrane of the tubes themselves, whilst in the latter the air-cells are more exclusively affected."

But if the pressure of pulmonary tissue in the expectoration of patients in this stage be so general, it will be readily seen that its absence is a most important fact in the history of any particular case. To show the practical bearing of this, I have added the following case:

Case 3.—A woman five months pregnant was admitted an outpatient of the hospital, complaining of severe cough, expectoration, and great loss of flesh and strength. I thought I detected a little deficiency in the resonance of the right sub-clavicular region, and there were some mucous rales on the left anterior chest, with harsh inspiration at the base of each lung. I could find no lung-tissue in the expectoration, but her general symptoms were so threatening that I re-examined it a fortnight afterwards and with the same result.

She steadily improved under treatment, and at her last visit reported that her cough and expectoration had both ceased.

3. STAGE OF CAVITY.

In thirty-five cases the stethoscope detected signs of cavities in the lungs, and in every instance there was lung-tissue in the expectoration. In one case I failed to find any on the first trial, but on repeating the experiment a week afterwards, with another specimen of the sputa, ten fragments were discovered.

I was disappointed in thus finding elastic fibre in every case, as in a considerable number of the patients the general health had so greatly improved, and the expectoration had so altered in character and decreased in quantity, that I had hoped to have been able to prove the complete arrest of the ulceration to be not infrequent. Two persons with stethoscopic indications of cavities in the lung, whose cases are not included in this paper, denied that they had any expectoration at all.

One patient stated that he only expectorated a little mucus for about half an hour each morning, but even this, when examined, was found to contain twenty fragments of lung. Another coughed up only a little thin, semi-transparent mucus in the mornings, and in it were contained eleven pieces of cell-structure and a bronchial tube.

But if the expulsion of the elastic fibre of the lungs is so general where cavities exist, it will be easily seen that the microscope is likely to prove of value in the diagnosis of enlarged bronchial tubes. I carefully examined the expectoration of two persons in whom I believed this condition to be present, and in neither case could I discover any fragments of lung.

As in all the stages of consumption we find portions of lung in the sputa, it will be interesting to ascertain whether there is any difference in the size of the pieces expelled in different periods of the disease.

In order to discover this I carefully counted the size of the fragments in sixty-nine cases, and from these the following table has been formed:

TABLE SHOWING THE SIZE OF THE FRAGMENTS OF LUNG CONTAINED IN THE EXPECTORATION OF SIXTY-NINE CASES OF CONSUMPTION.

Stage according to auscultation.	Fragments of bronchial tubes.	Fragments of single air-cells.	Fragments of from one to six air-cells.	Fragments above the size of six air-cells.	Large fragments.
8 Cases of deposition of tubercle with well-marked physical signs	15 p. c.	41 p. c.	34 p. c.	10 p. c.	—
7 Cases of softening stage without marked dullness on percussion .	14 p. c.	33 p. c.	43 p. c.	7 p. c.	3 p. c.
22 Cases of softening with decided dullness on percussion . .	8 p. c.	32 p. c.	46 p. c.	12 p. c.	0.5 p. c.
32 Cases of cavity . .	18 p. c.	31 p. c.	37 p. c.	12 p. c.	2 p. c.

It will be remarked that the proportion of bronchial tubes expectorated is smallest in the cases of the second stage, in which well-marked dullness showed the cellular structure of the lung to have been greatly implicated. It is greatest in those in which the signs of cavities existed, probably from the tubes which had formerly escaped destruction being in this stage attacked by the disease. Where cavities are present the large size of the tubes present in the sputa at once attracts the attention of the observer.

It might be supposed that there would be a great proportion of fragments of cells and an absence of larger pieces of lung in the stage of deposition, where the cavities formed are too small to give rise to the sound of mucous rales, and this the above table shows to be the case.

The proportion of fragments varying from one to six cells is greatest in the softening stage, and we can well imagine that cavernules likely to produce the crepitations so generally heard at this period would be the result of the expulsion of the fragments of this size. I have usually found that the size of fragments of lung coughed up in each case varies according to the sounds heard by the stethoscope; the finer the crepitation, the larger the proportion of the smaller pieces.

The appearance of the elastic fibre itself also varies in different

cases. In some it is remarkably thin, whilst in others it is very coarse, granular and opaque. This latter appearance is generally found in chronic cases, and especially in those with well-marked signs of cavities. I have met with it in post-mortem examinations in the walls of old cavities, and I believe it to indicate previous inflammation of the fibrous structure of the air-cells.

In order that the examination of the expectoration for lung-tissue should be successful, considerable care is requisite. A solution of pure caustic soda should be kept ready, about fifteen grains to the ounce of distilled water, and equal parts of this and of the sputa should be used. This mixture should be boiled for two or three minutes in a wide beaker, over a rose gas-burner or spirit-lamp, being occasionally stirred with a glass rod. When dissolved it is to be poured into a large conicial-shaped glass, and three or four times its bulk of cold distilled water is to be gradually added. It may be then set aside, in order that all the particles not capable of solution in the soda may subside.

The deposit should be placed in very shallow cells for examination. The cells should be cut out of vulcanite of the thickness of an ordinary visiting-card, and should be fixed to glass slides, with cements capable of resisting the action of alkaline solutions. If deeper cells are used there is a great probability that many of the fragments of lung-tissue may be overlooked.

I generally use a microscope fitted with a double arm, carrying an inch-and-a-half and a half-inch object-glass, with the tube drawn out to its fullest extent, and having a No. 2 eye-piece. The intention of this arrangement is, of course, to obtain as large a field as possible, conjoined with sufficient magnifying power.

The chief precaution to be observed is perfect cleanliness of all the apparatus, for the elastic fibre clings firmly to glass. The dipping-tube should be therefore always both brushed out and washed after each examination, or a fresh one should be used on the next occasion.

There is no difficulty in distinguishing the elastic tissue of the lung from other matters that may exist in the expectoration. It is often found clinging to filaments of hair, silk, &c., but in all cases the fineness of the fibres, their regularity and dichotomous division, render detection certain and easy.

Dr. Storer's Prize Essay; A Few Remarks by a Woman.

While the medical world is discussing a question relating so definitely to the interests of her sex, we think woman herself should not remain altogether silent. If the wives of physicians—who, sitting at the door of the profession, know something of what is going on within—do not speak, perhaps there are none who will. We are glad that some one of the profession has transcended the barrier, and stretched forth a helping hand to save woman from—worse than suffering—worse than death—from crime; and, notwithstanding the opinion of British journalists, we do not see that the matter could have been reached by any other class than the medical profession. We are ready to add our testimony to that of others, that Dr Storer's arguments against abortion as a crime, are earnest, powerful, convincing. The same may be said with reference to the risks of physical evil to the mother. Once establish the fact that abortion is crime,—that the taking of life in one stage of existence does not differ materially from taking it in any other—and there are not many so hardened, so reckless, as willingly to take upon their consciences so great a stain. These are the really effective arguments of the book,—and we could wish that with these alone it had been committed to the public. Admitting the truth of them, as we do,—what then? Because the remedy is not to be sought in the commission of crime does it follow that no remedy is needed? That there is nothing of which any woman of proper feelings will complain? Because relief has been sought in an improper channel, does it follow that her motives are just as wrong and improper? This is just what is assumed, and here is where the error lies—in a misapprehension of the motives—the causes.

One woman has already spoken on this head. We refer to an article published originally in the *Boston Medical and Surgical Journal*, under the title, "Why Not?—A Woman's View;" and republished in the CINCINNATI JOURNAL OF MEDICINE for December. We did hope this article, important as it was, and appearing, as it did, in a leading medical journal of the East, and another in the West, might, at least, have reached the different members of the profession, and by its modest purity, and the entire truth and mod-

eration of its statements, serve to correct certain erroneous ideas concerning this subject. We had hoped it might be doing its work silently, and that nothing more need be said. But we fear we have been disappointed.

It is claimed, truthfully we believe, that physicians have the power to mould public opinion upon these matters. How careful then should they be, to see that their own opinions are free from injustice; error at the fountain-head will taint the whole stream; and error, originating with an honorable profession, will work infinite harm. It is to be hoped then, if nothing more be offered, that some steps may be taken to give the article alluded to, brief as it is, a wider circulation. It embodies the truth, as we believe, in language to which none can object; it will do good, and not evil, in every home it enters. There is one argument of Dr. Storer's, of which we desire to speak. It is this: "To the woman in good bodily condition occasional child-bearing is an important means of healthful self-preservation;" also, "In this lies her greatest safeguard for length of days, and immunity from disease." Let it be understood, this is not speaking relatively, as compared with the risks of abortion, but positively.

Now we think this is injuring a good cause by attempting to prove too much. What is meant by the word "*occasional*," does not distinctly appear; but when, on comparing one part of the book with another, we find nursing to be the only limiting circumstance that is admitted to be perfectly consistent with the mental, moral, and physical well-being of woman, we conclude that "*occasional*" may as well be read *continual*. Every one knows that many mothers die in giving birth to their children; many previously healthy women come out of this terrible ordeal with diseases and ailments which must entail suffering on them for the remainder of life, disabling them and rendering work a burden, just when increasing cares must tax their strength to the utmost. Nor does it end with physical ailments alone. We are cognizant of instances of puerperal mania, causing insanity for months, for years, perhaps for a life time. Neither can it be desirable for any woman who values the full use of her mental faculties, as the greatest of earthly blessings, to spend so great a portion of her life in a condition which renders her "subject to thoughts, convictions even, which at other times she would turn from in disgust or dismay," to say nothing of nervous irritability, which renders all the world

unlovely to her, and her unlovely to all the world—and which too often serves as a pretext for neglect. Surely any immunity from disease, above what she would otherwise enjoy, would be dearly bought at such a price. Feeble women are sometimes seen struggling along with ill health, and large families, striving to convince themselves that otherwise they might have been in their graves; but on what they base their belief, it would be dificult to say. That certain uterine disorders are remedied by child-bearing, we believe is true; but beyond that we know of nothing else. Doubtless, many of the physical ills referred to, are caused by over-work, rendered unavoidable by the care of a family, by the business arrangements of the husband, made without reference to the comfort of his wife, and by the almost utter impossibility, in many places, of obtaining efficient help; often by the ignorance of the young mother that she should spare and care for herself. But let them arise from whatever source they may, they never will be successfully met by ignoring their existence; and just so soon as child-bearing is recognized as a function, fraught with peril to life, peril to health, inseparable in most cases from the severest suffering, both mental and physical, just so soon may we hope for that kind, considerate and forbearing treatment on the part of the husband which his wife would be the happier for receiving, and he the better christian for giving. But what shall we say of that husband who sees his wife go, each time, nearer and nearer into the dark valley, and each time return with less and less vital power to take up her increased burden,—and refuses to consider—refuses to be warned—till at last she goes down to return no more? Will he be held guiltless?

All arguments which fail to take into consideration the dark side of the picture, and allow its full weight, will be unavailing. In attempting to decide what is best for woman in this matter, it is certainly forgotten that she knows both sides from actual experience. Do not suppose that she is incapable of estimating the effect of different influences in life, and knowing what adds to her happiness, and what detracts from it. In view of these considerations would it not be well to take into account just what she *does* think—rather than attempt to prescribe, from a man's stand-point, what she *ought* to think?

We can not think public sentiment so perfectly depraved, with reference to these things, as some suppose. Maternal love is just

as powerful to-day as in any former age of the world—to "maternal duties and cares in moderate degree," few object. But those very things which, in moderation, may develop some of her noblest powers, may, in excess, destroy every attraction she possesses—nay, love itself may perish, choked out, like so much other good seed, by too much worldly care. And when the fair vision of happiness, which rose before her so brightly on her marriage-day, has been blotted out, by years of disappointment and suffering, —would it then be just, or generous, to remind her, if she complained, that she had better have remained unmarried?

Often the strength of the wife, almost or quite unaided, is the power which must keep in motion the whole domestic machinery, establish and maintain order, neatness, comfort—everything which renders home pleasant and attractive. Under these circumstances she has little opportunity to spare her strength for the fulfillment of her "highest duty." Duty presses at all points. Can you blame her if she shrink from adding another burden to the already overtaxed strength? What wonder then, if between constantly increasing maternal cares, on the one hand, and her anxious, despairing efforts to keep her home up to the proper standard, on the other, she is crushed, as between the upper and the nether millstone? And let us remark, in passing, that the standard of American homes is being elevated constantly and rapidly. Be assured there is something more than frivolity and vanity, at the bottom of all this.

What if there should even be left lingering a little of the desire for self-culture which was stimulated as something so praiseworthy, in her youth? Would it be set down to the credit of selfishness altogether? To educate woman merely for household duties was, some time since, decided to be wrong; but is it not, at best, a doubtful benefit, which awakens intellectual and refined tastes, if she must be consigned to a life which precludes their exercise and enjoyment? It is generally believed that the one overwhelming objection to maternity, is physical suffering. Doubtless it is with many; but there are those with whom other considerations, we think, would outweigh even this. It involves the loss of so much that is pleasant, profitable, attractive in life. Her thoughts—which before had gone out in so many different channels, social, benevolent, religious—are at once checked—turned in upon herself. Instead of these interests, she has solitude, ill health, the certain prospect

of great suffering—of possible, and more than possible, death. Striving with her feeble health to meet the cares which already devolve upon her—to extend her provisions as far as possible into the future for the benefit of those who may be left without her care—little thought, little time, can she have for anything else. Her husband, quite likely goes on his way—his mind preoccupied with a hundred different interests—continues to enjoy in undisturbed serenity the things of which she is deprived, sits complacently in his seat in church, from which she is excluded for months together—would in all probability consider it a selfish exaction if he were required to forego these things for anything less than absolute helpless sickness on the part of his wife: yet fails utterly to see, what perhaps is the truth, that it is a selfish exaction on his part which has deprived her of so many enjoyments, So they go on from year to year—the interest of the one here, the interest of the other, there. This difference of interest, where at first perhaps there had been such perfect companionship, is a sad thing for any true-hearted wife to bear. Besides, any one who has the slightest sense of justice, will rebel against suffering privations for the sake of one who will bear nothing in return.

Indifference on the part of the husband may be the bitterest drop in the whole cup. Many men really do not consider that there is anything in the case requiring either sympathy or care—she is only fulfilling the end for which she was created—doing nothing more than her duty—and has she not just had it from high medical authority, that in this lies her greatest security for health and long life? What is there in all that which she should complain of, or that he should sympathize with? So he leaves her to nature, and goes his way; he himself, does not so much as touch the burden with one of his fingers.

These reiterations of "duty," and "appointed end," coming thus, as they generally do, from those who have nothing to suffer in the matter, and who bear the little they might, often very reluctantly and grudgingly, possess very little weight indeed. Here, as in many other cases, "those who insist upon the duty of self-denial are in situations very favorable to self-indulgence." How different is it all, when the wife is sustained by the consciousness that she is adding to the happiness of a generous husband—one who values her happiness, and guards it—who sees and appreciates the sacrifice, and is willing to reward it to the best of his abilty—who

prizes her children—not merely tolerates them. Let her have these assurances, and see if she does not walk bravely, courageously, along the thorny way.

Christian treatment is all we ask, for women; not the treatment she receives from those who think the primal curse pronounced upon her, confers the right upon her husband to exact of her what he will, at any expense of suffering to herself. It was no such selfish sentiment as this, that Christ enjoined, when he gave, as the model, his holy and self-sacrificing love for the church—the love which gave himself for it.

The idea prevails that it is the duty of the wife to bear an amount of self-sacrifice, out of all proportion with anything required of the husband. Often she could make a better stand in her own behalf, if she were not misled by false notions of duty. Many a one considers herself almost a saint for the yielding submission, which is working disaster to both herself and her husband. We hear of the "wife's duty"—"the husband's rights." When a husband regulates his conduct by such ideas as these, there is generally little that is generous and noble in his love. There may be preference, there may be fondness even, but it is a preference and a fondness which brings only bane to its object. A populous and powerful nation is certainly a fine thing to contemplate; but we fear that Dr. Storer—in his patriotic appeal to American women, to people our savannas and prairies with their own sons, and not suffer them to be taken by aliens—did not count the cost. Why, if aliens need them worse than we, let them take them. Never fear, if we do our duty as a people, but there will be salt enough left to save the nation. Are we not called upon, almost daily, from the pulpit, by the religious press, to give our brightest sons, to be missionaries, to christianize these aliens! Shall we give them our sons, and deny them the land we do not need? Hundreds of silk-weavers in the city of Lyons, in want and destitution; millions perishing of famine in India; these are things which appeal to humanity. But millions of acres, lying uncultivated in the South and West, do not move us a whit. Women are not insensible to considerations of national greatness, but matters of so delicate a nature, as that under discussion, should be regulated by the most delicate private considerations.

There is one cause which certainly tends, with powerful effect, to render women dissatisfied with home duties; viz., the compara-

tively low estimate at which they are held by men. We do not forget the fact that business compels most men to be absent from home the greater part of the time. But it is not business alone, which stands responsible for this evil. Public duty, in every shape, takes the precedence, often to the almost utter neglect, of private duty; and, what is more dangerous still, quiets the conscience on the score of duty altogether. There are men who are devoted to the interests of the church—to the cause of public education—to every good work under the sun—who either do not find the time or the will, to give their own families the watchful care necessary to keep them from temptation and error. To suppose that God holds us responsible, in a higher degree, for the welfare of our neighbor, than for that of our own household, seems to us a great misapprehension of duty; yet practically, this is just what it amounts to.

Is it surprising that women come to regard these things as least honorable, to which they see least honor given? If men find it easier to do their duty in public, sustained by the approval of others, let them remember it is not so easy for women to do their duty in private—with none to approve, and none to witness.

If children were more frequently brought *directly* under the moulding influence of a judicious father, it would be better for both parties. If home interests had a stronger hold on the heart of the husband, be assured they would possess greater attractions for the wife.

Anæsthetics are not, at the present time, in sufficient general use, to have much weight upon the subject of abortion. Many physicians object entirely to their use in labor; upon what ground we do not know. But there is, on the part of the community at at large, a fear of anæsthetics, which, if not removed, is sufficient to prevent their general use. If physicians themselves, are convinced that chloroform can be administered with safety, it is certainly their duty to seek to overcome this prejudice. The testimony of those who know its value from experience, is that it can not well be overrated. It is to be hoped that future investigations will turn the scale in favor of its general use. This is a subject which appeals to every instinct of humanity and christianity; and if physicians would do their duty as christians, they can not, like the Levite of old, pass suffering by on the other side.

The surest way to prevent crime is to lessen the temptation; and it is to express the hope that something may be done to this end, that we have spoken on the subject at all.

BIBLIOGRAPHY.

Traite Experimental et Clinique de la Regeneration des Os et de la Production Artificielle du Tissu Osseux. Par L. OLLIER, Chirurgien en chef de l' Hotel-Dieu de Lyon; with nine copper plates and forty-five wood-cuts; 2 vol. 8vo. Paris: Victor Masson et Fils. 1867.

This magnificent work is dedicated to Cl. Bernard and A. Velpeau. Since the publication of his article in the *Gazette hebdomadaire de Medecine et de Chirurgie*, in 1858, and which was entitled "On the Surgical means for promoting the Reproduction of Bone after Resections," (*Des moyens chirurgicaux de favoriser la reproduction des os apres les resections,*) the name of Ollier has become most widely and favorably known in connection with the brilliant achievements which, of late, have been accomplished in the surgical treatment of the diseases of the osseous system. In his preface the author states that, as regards the resection of joints, he has discussed the subject in a manner different from any other experimenter. He has shown the importance of the continuity of the canal, or of the "*periosteo-capsulaire* sheath, in the reconstruction of new joints—in other words, articulations of the same type as those which have been removed." Herein consists the most important of his researches, as regards conservative surgery. By comparative experiment, I ascertained why the ancient methods were insufficient to re-establish the true articulation. Motion, it is true, was preserved, but not that of the true articulation of bones. I believe that something more was needed, and the result of my experiments has been to furnish both the physiological principle, but also the operative method of a new system of resections. The third point, that is the *osteoplastie periostique* is based physiologically upon my experiments on the transplantation of the periosteum. I have demonstrated, indeed, the two fundamental facts which justify surgeons in attempting this operation, viz: the ossification of the periosteum detached from the bone and placed in its unnatural connections; and the absence of necrosis of the denuded bones. Then it was that I proposed to repair loss of substance in the skeleton of the face by including the periosteum in autoplastic flaps. I did not at once transfer to the human subject these various operative methods. At that time I had no hospital wards, and the only op-

eration, to which I could appeal, in 1849, was a case of subperiosteal resection of an elbow, performed by M. Verneuil at the hospital Beaujon. No sooner, however, than I was appointed surgeon of the Hotel-Dieu of Lyons, than I began to verify on man the experiments I had performed on animals."

We hope soon to present our readers with extracts of a practical character from this most valauble work. G. C. B.

MISCELLANY.

Surgeon-General McDermont's Report.

MESSRS. EDITORS:—Please allow me space for a few words in reply to Professor Hamilton's strictures upon my "endorsement" of Surgeon-General McDermont's report.

I quoted the report as evidence of the necessity of the passage of a measure which would, undoubtedly, be of essential service to the profession in elevating the character and standing of its members, and to the community at large, by ensuring well-educated medical men. I quoted it without thought of examining into its correctness, and claim that it was perfectly right to do so, it being a public document. I, therefore, leave to Dr. McDermont the task of verifying the statements contained therein. I deny having "denounced" my medical brethren; deny that such a construction can justly be placed upon the position taken, that "the possession of a diploma is no longer considered a guarantee that its holder is a well qualified medical man.." I deny, too, most emphatically, any intention "to read the great body of the profession out of respectable standing."

Since the bill has been defeated, it is needless to adduce further arguments in its favor. They are, by no means, exhausted, however, and I may be allowed to mention one not included in my last letter. I allude to the number of men practicing medicine, (regular,) who are not gradutes.

In the county in in which I reside, quite one-half the practice, outside of the city, and towns, is in the hands of such men. Now if an army examination of graduates gives a poor record, how would it be with these? They have entered the profession without any examination as to qualifications or acquirements, and the community suffers the consequences.

It is noteworthy that Professor Hamilton can not find a word to say in favor of the measure under discussion; he avoids the real issue entirely, and confines himself to a point upon which I shall be gratified to find that an error has been committed. Yet, if men, occupying the high position he does, as a practitioner, and as a teacher, do not support a measure so evidently necessary, we may well despair of any efforts, in this direction, to elevate the profession and protect the community. Yours, &c. J. C. REEVES.

Dayton, Ohio, April, 1867.

Loose Cartilages and Internal Displacement of the Semilunar Cartilage.

Mr. Holmes Coote, in his recently published treatise on *Joint Diseases*, London, 1867, p. 141, thus describes the above conditions: "I feel," observed a patient to me, "as if at a moment the whole limb, from the knee downward, was numb. If I press on some movable body when it has slipped to the outer side of the patella, a sharp pain runs down to the three outer toes. If I press on the body when it has slipped to the inner side, the pain extends to the great toe, and the toe next to it. The pain is that of a sharp knife, which can not cut its way out." In this case the application of a stiff knee-cap afforded immediate relief. Displacement of cartilage is supposed to depend on a subluxation of the external semilunar cartilage. It cannot be the internal, inasmuch as this latter is half moon shaped, and fixed by both extremities to the bone, and by its middle to the internal lateral ligament. The external semilunar cartilage, on the other hand, forms nearly a complete circle, and is attached only at that point where its two extremities meet. In order to put the part right when displaced, first bend the knee to relax the ligaments and then sharply extend; the articular surfaces of the joint coming together press the cartilage into its proper position."

We have often treated successfully the subluxation (Hey's), above described by Mr. Coote, and by the method recommended by him. In reference to the treatment of the "loose cartilages," at p. 53, Mr. Coote quotes from the third volume of Holmes' *System of Surgery*, p. 739, the analysis by M. Larrey, of 167 published cases of removal of loose cartilages by operation—"out of 121 cases in which the old or direct method was employed, 98 were successful, 5 doubtful, and 28 died; whilst of 39 indirect operations, 19 were successful, 15 failed, and 5 died." This fearful mortality and want of success would seem to justify the following

condemnation of the operation, expressed by Mr. Vincent, in his *Observations on Surgical Practice*, London, 1847, p. 294. This distinguished and most experienced writer remarks: "I once saw an adventitious cartilage removed from the knee-joint of a fine young woman, and the result of the operation was, that she died in less than a week from violent inflammation of the synovial membrane. Such an event, implying the fearful chance of sudden death, must make a surgeon, who feels his deep responsibility, pause before he can recommend an operation for this purpose; particularly as the evil may be made very tolerable by bandages and contrivances, and so continue of less magnitude than many of the calamities which can not be shaken off, and under which life is often passed with cheerfulness. I have observed that if this operation has been successful after the healing of the wound, there has then remained a considerable limitation in the free motion of the joint; and the same circumstance has likewise taken place in those cases which have got well after the joint has been accidently punctured. From this observation I am led to suppose that in all successful cases of this kind that will happen, which we know takes place in wounds, into the cavity of the peritoneum, which is, that adhesions are formed between the edges of the wound in the synovial membrane, and the part upon which it lies, and thus, as in the case of the peritoneum, the inflammation is circumscribed to the mere wound and therefore checked from spreading."

In the *Nouveau Dictionnaire de Medecine et de Chirurgie*, Vol. III, p. 38, Panas, in his article on the *Articulations*, quotes more fully from the memoir communicated by the Baron H. Larrey to the *Societe de Chirurgie* (Paris), in 1861. M. Panas refers to the other very important points mentioned in the above memoir, which have not been referred to by Mr. Coote. Of the 98 cases in which the body was successfully removed by the direct method, 10 resulted in ankylosis, 8 were complicated with serious accidents, such as suppuration, etc., while 2 were followed by hydarthrosis. In view of the facts recorded by Baron Larrey, M. Panas justly remarks that these operations should never be attempted until palliative measures have been fairly tried and failed, and the pain and swelling caused by the foreign bodies have become insupportable.

G. C. B.

PARACENTESIS PERICARDII.—This operation has been again successfully performed at the Leeds Infirmary, England, by Mr. Wheelhouse. He passed a fine trocar half an inch from the left side of the sternum, and opposite the upper margin of the costal cartilage of the fifth rib. On withdrawing the trocar about two and a half or three ounces of a pale pink coagulable serum escaped, at first in a steady stream, but afterward subsiding into a saltatory flow coincident with the heart's contractions. The operation was performed on the 19th September, 1866, and the patient was discharged cured on the 13th of October. He was 26 years of age, and had suffered severely from acute rheumatism. In our *Appendix* to the third volume of Velpeau's Operative Surgery, we thus noticed the recorded cases of this operation, p. 927. There is reason to believe that the first successful operation of the kind was performed by the late Dr. John C. Warren, of Boston. M. Trousseau has reported another case in the *Archives Generales de Medecine*, for November, 1854. Another case occurred in the practice of Schuh, of Vienna. This patient died some six months afterward, and at the autopsy the point at which the pericardium had been punctured was found adhering to the heart by thick cellular tissue. G. C. B.

DIAGNOSIS OF INJURIES OF THE CRANIUM.—"When a blow, as by a hammer, is made on the scalp, blood is extravasated at that part, causing an elevation. The blood coagulates around the spot upon which the hammer struck, so that the elevation resolves itself into a central hollow of fluid serum, and a surrounding elevated ring of solid fibrine, giving rise to a sensation of depressed bone in the center. If, however, you press firmly for a minute or two with your finger on the annular elevation, and it be simply blood and fibrine, it will gradually depart, and you then feel the bone in the center of the swelling, evidently on the same level as that of the surrounding bone; there is evidently no central depression."

We make the above extract from a clinical lecture by Mr. John Hilton, and published in *Guy's Hospital Reports*, 1865. In not a few instances have we known practitioners mistake the "central hollow" mentioned by Mr. H., for a depression of bone. G. C. B.

Gangrene of Cholera and Diabetes.—In the April number of the "*Archives Generales de Medicine*," is an article on "Gangrenous accidents in Cholera," by A. Mouchet, a hospital interne. The cases were observed in "l'Hotel-Dieu," during the last year. After alluding to the articles of Boillaud, Gendrin and Tardieu, and one in the "*Dictionaire de Fabre*," he relates six cases, with the autopsies; one of gangrene of the lower lip, two of the lungs, (one of the latter furnished him by M. Penieres, from Amiens, where cholera made great ravages)—one of gangrenous spots around a blister—one of partial gangrene of right arm and fore arm, and one of phlegmon and gangrene, in the right scapular region. These occurred always in the period of reaction.

He remarks, "Choleraic gangrene occurs then, and this morbid action should not be considered as an exceptional accident, and independent of cholera, but as one of the possible effects of this terrible disease."

He considers it to bear as close a relation to cholera as gangrene in diabetic patients does to the diabetes. It can attack either the alimentary canal, or the lung; the skin or the extremities of the intestines; the large are oftener affected than the small. It has not been positively seen in the stomach. It has been oftener observed in the intestines than any where else. "Perhaps we can find the explanation of this in the derangements of the circulation, of which the intestinal mucous membrane is the seat—either during the algid period, or during the period of reaction."

The fact, which M. Gubler sustained by numerous observations during the epidemic of last summer, that in the reaction period of cholera, sugar always is present in the urine, is commented on by the author, and suggests the similar accidents in diabetes. He says: "In considering the analogy which exists between diabetic and choleraic gangrene, it seems that we can conclude that both acknowledge the same cause; but the facts are not sufficiently numerous to affirm any thing positively in this respect." M. Gubler alludes to the relation which exists between certain complications common to diabetes and cholera.

In relation to choleraic gangrene of the lungs reported by him, Mouchet says: "In one case there was pneumonia and gangrene. But the sphacelus of the lung did not depend on inflammation, for the pneumonia was seated in the superior lobe of the right lung whilst the pulmonary tissue, which surrounded the gangrene in the middle lobe, was simply congested."

"In the second case, inflammation and gangrene of the lungs had been diagnosed during life by the fœtid odor of the breath and sputa; and the expectoration of the gangrenous detritus." Double gangrenous pneumonia is spoken of by M. Royer as a frequent termination of diabetes—an important characteristic of it, according to Marchal (de Calvi) is the absence of fœtid smell of the breath and sputa, except in a case observed by Fritz.

In a late number of the "CINCINNATI JOURNAL OF MEDICINE," mention was made of gangrene supervening in an aged diabetic patient. The cases detailed by the author in the "*Archives*," suggest interesting points of relation between diseases apparently wide apart.

THE OHIO STATE MEDICAL SOCIETY will hold its next Annual Meeting at Yellow Springs, on the 2d Tuesday of June.

The Executive Committee have made arrangements with the proprietors of the *Yellow Springs Hotel* and *Neff House*, to accommodate the members of the Association, and their families, on very reasonable terms. An arrangement is also being made with the railroads, to secure half-fare tickets.

Yellow Springs, the seat of Antioch College, is celebrated for the grandeur of its scenery and the quality of its mineral waters. It is the most popular summer resort, for health and pleasure seekers, of any watering-place in the West. It is situated on the Springfield and Xenia Railroad, about sixty miles north of Cincinnati. Being in communication by rail with all parts of the State, it is hoped that the attendance this year will be unusually large. The meetings will be in the Presbyterian Church, close to the hotels.

CINCINNATI ACADEMY OF MEDICINE.—At a meeting held on the 4th of March, the following officers were elected: Dr. John L. Vattier, President; Dr. John Davis, First Vice President; Dr. W. H. McReynolds, Second Vice President; Dr. G. S. Courtwright, Secretary; Dr. W. T. Brown, Corresponding Secretary; Dr. J. S. Unzicker, Treasurer; Dr. W. B. Davis, Librarian. Appropriate remarks were made by the retiring President, Dr. Carroll, and by his successor, Dr. Vattier.

PROFESSOR GUNN, of the University of Michigan, has resigned his place in that Institution, and accepted a call to Chicago, to fill the chair of surgery, vacated by the death of Professor Brainard. We learn that Professor Greene, of Pittsfield, Massachusetts, has accepted a call, to fill the vacancy, caused by the resignation of Professor Gunn.

THE AMERICAN MEDICAL ASSOCIATION.—Within a few days this Association will meet in our city. The Committee of Arrangements has, for some time, been actively engaged in preparing for this event. It is believed that it has succeeded in making such arrangements as will secure commodious business rooms, and make the stay of our friends agreeable. Its duties have been arduous, and it deserves the thanks of our profession.

There is an universal desire, in the profession here, that the members of the Convention shall have a profitable and a pleasant visit, and, so far as lies in its power, the profession will work cordially to that end.

In another part of this number of the JOURNAL, are some suggestions, looking to important changes in the general method of conducting the sessions of the Association. With the writer, we agree in his general proposition, that the Association should be made more of a working and scientific organization. The scope of work which its rules propose, is far too large to be satisfactorily worked out in the present mode of conducting the meetings. The results, as exhibited in the annual volume of Transactions, are not satisfactory. It is by that volume we must judge it mainly. Any one, who will candidly examine the Transactions of last year, will, we think, fail to recognize in them the high order of merit which we have a right to expect, and which the profession in this country are capable of attaining.

The readers of the JOURNAL will have, in the next number, an abstract of the most important proceedings of the Association.

I. BAKER BROWN AND THE OBSTETRICAL SOCIETY OF LONDON.—By the last number of the *Medical Times and Gazette* which has reached us, we are informed of the expulsion of Mr. Baker Brown, from the Obstetrical Society, for unprofessional conduct. The principal charges brought against him were—his having practiced the operation of "Clitoridectomy," without the consent or knowledge of his patients, or their relatives; his having ignored the regular medical attendant, by operating without notifying him of his intention; by continuing to perform this operation, after he had given a pledge to the society that he would suspend the practice of it, until the society should pass upon its merits; and for willful misrepresentation in certain specified instances.

The proceedings in the case were marked by much heat and acrimony; and in some particulars, by decided unfairness. With us, such proceedings would be justly considered outrageous. Mr. Brown's defense was certainly a very weak one; but, as was claimed by his friends at the time, allowance should be made for the disgraceful interruptions, which must have embarrassed him in no slight degree. Upon counting the ballots, it was found there were one hundred and ninety-four votes for his expulsion, and only forty-one, including the non-voters, against it.